Aspire SA60
AcerPower S260
Service Guide

Service guide files and updates are available on the AIPG/CSD web; for more information, please refer to http://csd.acer.com.tw

PRINTED IN TAIWAN

Revision History

Please refer to the table below for the updates made on Aspire SA60/AcerPower S260 service guide.

Date	Chapter	Updates

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Conventions

The following conventions are used in this manual:

SCREEN MESSAGES	Denotes actual messages that appear on screen.
NOTE	Gives bits and pieces of additional information related to the current topic.
WARNING	Alerts you to any damage that might result from doing or not doing specific actions.
CAUTION	Gives precautionary measures to avoid possible hardware or software problems.
IMPORTANT	Reminds you to do specific actions relevant to the accomplishment of procedures.

Preface

Before using this information and the product it supports, please read the following general information.

1. This Service Guide provides you with all technical information relating to the BASIC CONFIGURATION decided for Acer's "global" product offering. To better fit local market requirements and enhance product competitiveness, your regional office MAY have decided to extend the functionality of a machine (e.g. add-on card, modem, or extra memory capability). These LOCALIZED FEATURES will NOT be covered in this generic service guide. In such cases, please contact your regional offices or the responsible personnel/channel to provide you with further technical details.
2. Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel. If, for whatever reason, a part number change is made, it will not be noted in the printed Service Guide. For ACER-AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

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System Specifications

Overview

- Micro-ATX compliant form factor (9.6” x 8.0”)
- Support Hyper Threading Technology
- Intel® Pentium 4 Willamette and Northwood (uPGA 478) family processor
  - NorthBridge : SiS661GX
  - SouthBridge : SiS964L
  - SIO : ITE8705GX
  - SST 2Mbit Flash ROM (ISA)
- Single channel DDR 266/333/400 (2GB maximum capacity)
- Support FSB 400/533 MHz CPU
- AC’97 ALC655 integrated audio
- Three PCI slots for μ ATX
- Up to eight 2.0 USB ports
- PCI LAN with Realtek 8100C
- Advanced Configuration and Power Interface (ACPI) 1.0b compliant

Features

CPU

- CPU Type : Pentium 4 Willamette and Northwood (µPGA478) family processors
- CPU FSB : 533/400 MHz
- CPU GHZ : up to 3.2GHz

Chipset

- North Bridge : SiS 661GX
- South Bridge : SiS964L

PCB

- Form Factor : µATX
- Dimension/ Layer : 9.6” x 8.0”/4

Memory

- Memory Type : 266/333/400 MHz DDR DRAM interface, 2.6V
- No of Channel (Dual/Signal) : Signal
- Socket Type : 184-pin DIMM
- DIMM Slot : 2
- Memorry Max. : Support 128MB, 256MB, 512MB and 1GB DDR memory technologies x4, x8, x16 devices with two banks
- Cpapcity :128MB ~ 2.0GB
- Supports Serial Presence Detect (SPD)
- Supports Suspend to RAM (STR), S3 ACPI state
- Registered DIMMs not supported
- ECC Support : N/A
- Suspend-to-RAM support using CKE

Storage

- SB Controller : SiS964L
- Storage Port : 2 x ATA133
- 2 external 5.25” drive bays
- 6 3.5" drive bays(two external for FDD, and four internal for HDD)

Graphics

- Build in NB
- Graphic Port : AGP8X
- AGP Slot : 1
- DVI-Video Interface : N/A
- SiS 661GX with Integrated 2D/3D Graphics Accelerator

PCI

- PCI Slot Type : PCI 2.2, 5V Slots
- PCI Slot : 3

IDE

- Slot Type: 40 pin IDE slot
- Slot Quantity: 2 x ATA 133
- Transfer rate support:
  - PIO mode: 0/1/2/3/4
  - ATA mode: 33/66/100/133 port supported
- Storage Type support: HDD/CD-ROM/CD-RW/DVD/Combo/Supermulti+Zip250

Audio

- Audio Type : AC97'
- Audio Channel : 5.1ch
- Audio Controller /Codec : Realtek ALC655
- Support S/PDIF : Reserve
- ATAPI analog line-level stereo inputs for CD Audio IN
- Audio Connectors/Headers:
  - Vertical or horizontal connector for three mini-audio jacks (Stereo Line In, Stereo Line Out and Stereo Microphone In)

LAN

- Supports 10/100MB ethernet environment
- Type : RealTek 8201BL/CL

IEEE 1394

- IEEE 1394 Controller : N/A
- IEEE 1394 Port : N/A

USB

- USB Type : 2.0
- Connectors Quantity: 8
  - Front Panel : 2
  - Real Panel : 4
  - Internal : 2

BIOS

- BIOS Type : Phoenix Award BIOS
- 2MB Flash BIOS (ISA)
- Award PnP BIOS compatible with SM BIOS 2.3
- ACPI, SMBIOS 2.3, Green and Boot Block.
- Provides DMI 2.0, WFM 2.0, WOL, and SM Bus for system management.

I/O Connector

Front Panel

- ❑ 2 USB ports
- ❑ 1 headphone out
- ❑ 1 microphone in

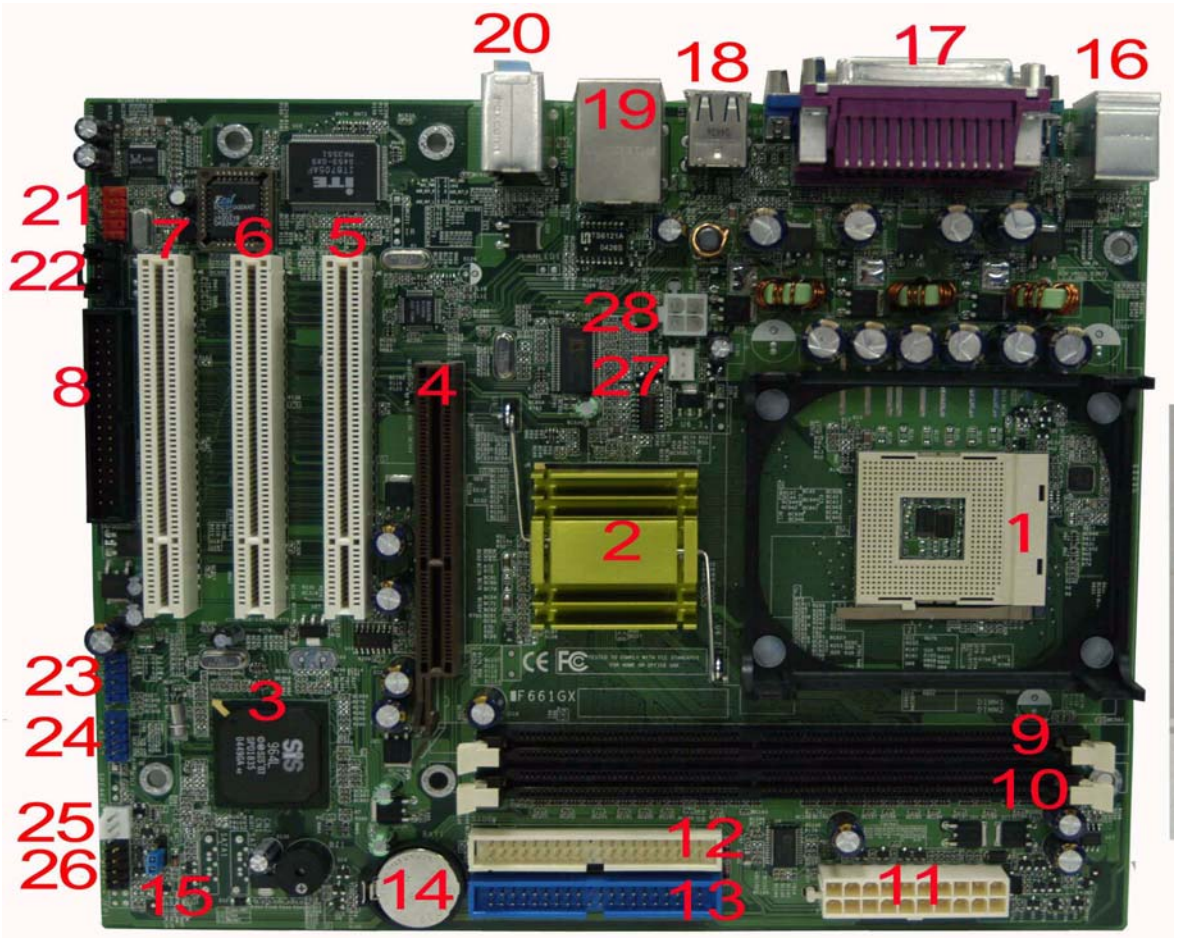
Rear Panel

- ❑ PS/2 Keyboard Port : 1
- ❑ PS2/ Mouse Port : 1
- ❑ Serial Port : 1 (COM1 only)
- ❑ Parallel Port : 1
- ❑ VGA Port : 1
- ❑ S/PDIF : N/A
- ❑ IEEE 1394 Port : N/A
- ❑ USB Ports : 4
- ❑ Line in / Line out/ Mic-in Port : 1

Power Supply

- ❑ PSP Type : 230W

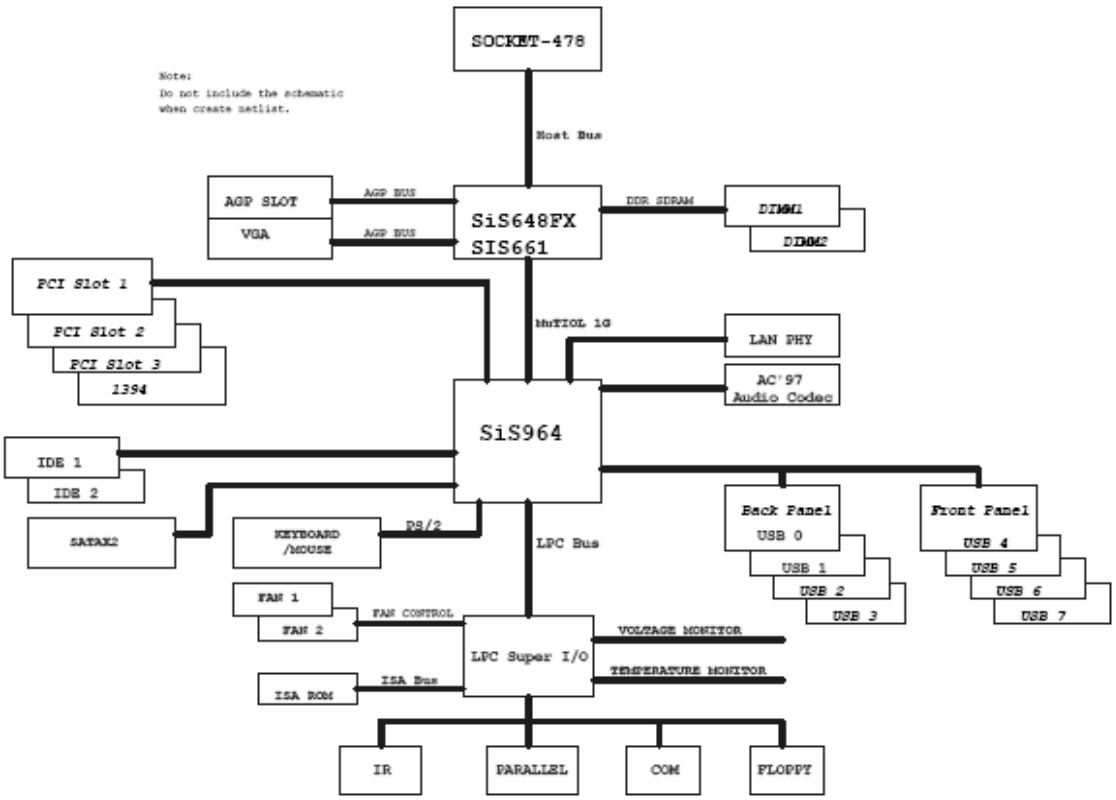
Mainboard Placement



No.	Label	Component
1	U1	CPU Slot
2	U6	Northbridge Chipset
3	U25	Southbridge Chipset
4	AGP	AGP Slot
5,6,7	PCI 1,2,3	PCI Slot
8	FLOPPY	Floppy Data Transfer Channel
9,10	DIMM 1,2	DIMM Slot
11	PWR1	ATX Power Connector
12	SIDE	IDE Channel
13	PIDE	IDE Channel
14	BAT1	Battery
15	CLS_CMOS	CMOS Header
16	KB/MS	PS2 KB & MS
17	PRT	Parallel IDE Connector
18	USB	USE Connector
19	NIC_USB	Net Work & USB Connector

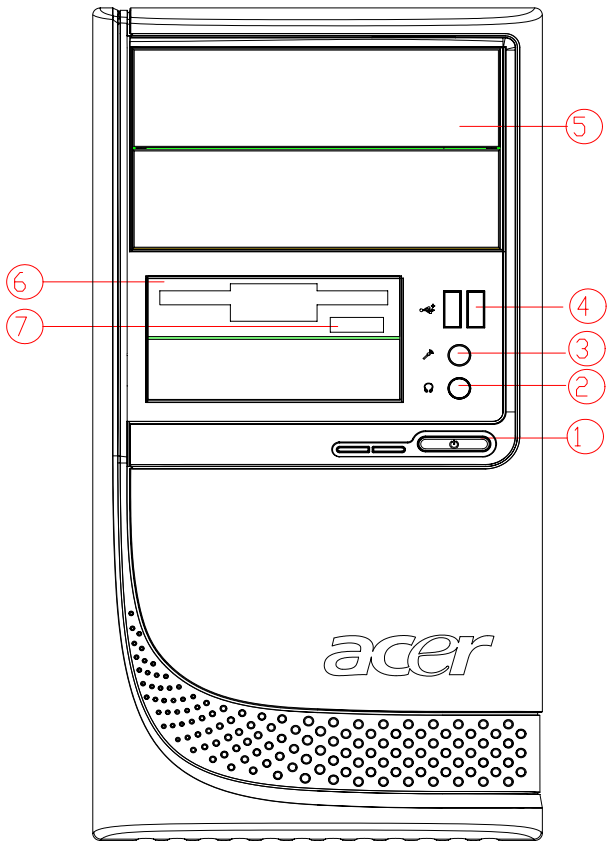
No.	Label	Component
20	AUDIO	Audio Connector
21	F_AUDIO	Front Audio Header
22	CD_IN	CD IN Connector
23,24	FUSB2,1	Front USB Header
25	FAN1	System FAN Connector
26	JFP1	Front Panel Header
27	CPU Fan1	CPU FAN Connector
28	PWR2	ATX 12V Connector

Block Diagram



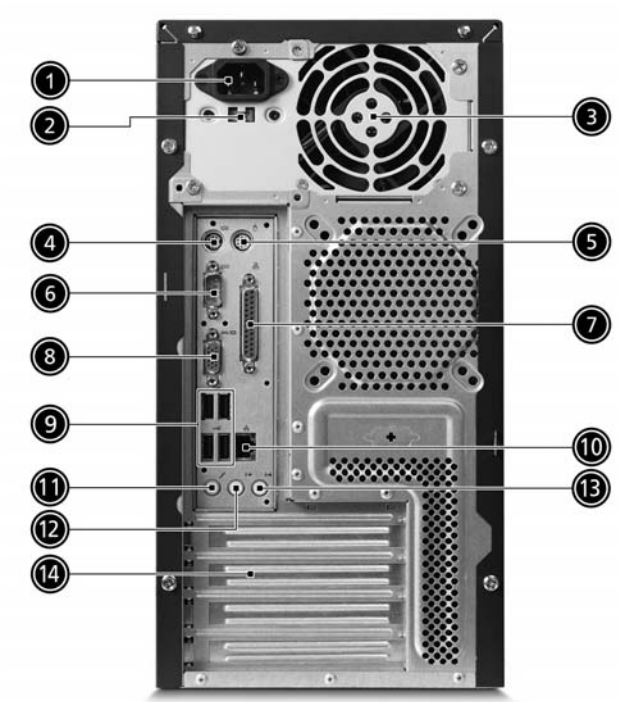
Aspire SA60 Front Panel

The computer's front panel consists of the following:



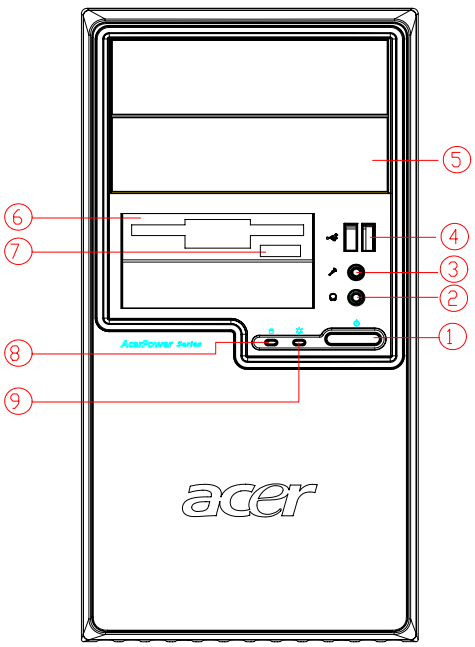
Label	Description
1	Power-Button
2	Speaker-out/Line-out Port
3	Microphone-in out (Front)
4	USB Ports
5	Optical drive
6	3.5 inch Floppy disk drive
7	Floppy drive eject button

Aspire SA60 Rear Panel



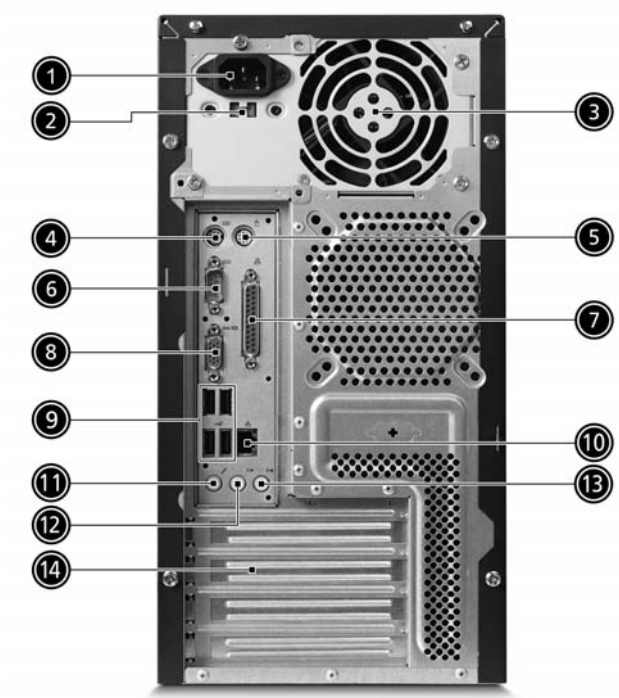
No.	Description	No.	Description
1	Power cord socket	2	Voltage selector switch
3	Fan aperture	4	PS/2 keyboard connector
5	PS/2 mouse connector	6	Serial port
7	Printer connector	8	Monitor connector
9	USB 2.0 ports	10	RJ-45 Ethernet connector
11	Microphone jack	12	Line-out Jack
13	Line-in jack	14	Extension card slots

AcerPower S260 Front Panel



Label	Description
1	Power-Button
2	Speaker-out/Line-out Port
3	Microphone-in out (Front)
4	USB Ports
5	Optical drive
6	3.5 inch Floppy disk drive
7	Floppy drive eject button
8	HDD LED
9	Power LED

AcerPower S260 Rear Panel



No.	Description	No.	Description
1	Power cord socket	2	Voltage selector switch
3	Fan aperture	4	PS/2 keyboard connector
5	PS/2 mouse connector	6	Serial port
7	Printer connector	8	Monitor connector
9	USB 2.0 ports	10	RJ-45 Ethernet connector
11	Microphone jack	12	Line-out Jack
13	Line-in jack	14	Extension card slots

System Peripherals

The Aspire S Series computer consist of the system itself, and system peripherals, like a mouse, keyboard and a set of speakers (optional). This section provides a brief description of the basic system peripherals.

Mouse (PS/2 or USB, manufacturing option)

The included mouse is a standard two-button wheel mouse. Connect the mouse to the PS/2 mouse port or USB port on the back panel of the system.

Keyboard (PS/2 or USB, manufacturing option)

Connect the keyboard to the PS/2 keyboard port or USB port on the back panel of the system.

Speakers

For systems bundled with speakers, before powering on the system, connect the speaker cable to the audio out (external speaker) port on the back panel of the system.

For more detailed information about the speakers, please refer to the included operating instructions.

NOTE: speakers are optional and the appearance might be different depending on the actual product.

Acer eRecovery

Acer eRecovery is a tool to quickly backup and restore the system. Users can create and save a backup of the current system configuration to hard drive, CD, or DVD.

Acer eRecovery consists of the following functions:

1. Create backup
2. Restore from backup
3. Create factory default image CD
4. Re-install bundled software without CD
5. Change Acer eRecovery password

Create backup

Users can create and save backup images to hard drive, CD, or DVD.

1. Boot to Windows XP
2. Press **<Alt>+<F10>** to open the Acer eRecovery utility.
3. Enter the password to proceed. The default password is six zeros.
4. In the Acer eRecovery window, select **Recovery settings** and click **Next**
5. In the Recovery settings window, select **Backup snapshot image** and click **Next**.
6. Select the backup method.
   - ❑ Use **Backup to HDD** to store the backup disc image on drive D:.
   - ❑ **Backup to optical device** to store the backup disc image on CD or DVD (only available on systems that include an optical disc burner).
7. After choosing the backup method, click **Next**.

Follow the instruction on screen to complete the process.

Restore from backup

Users can restore backup previously created (as stated in the **Create backup** section) from hard drive, CD, or DVD.

1. Boot to Windows XP.
2. Press **<Alt>+<F10>** to open the Acer eRecovery utility.
3. Enter the password to proceed. The default password is six zeros.
4. In the Acer eRecovery window, select **Recovery actions** and click **Next**.
5. Select the desired restore action and follow the onscreen instructions to complete the restore process.

Create factory default image CD

When the System CD and Recovery CD are not available, you can create them by using this feature.

1. Boot to Windows XP.
2. Press **<Alt>+<F10>** to open the Acer eRecovery utility.
3. Enter the password to proceed. The default password is six zeros.
4. In the Acer eRecovery window, select **Recovery settings** and click **Next**.
5. In the Recovery settings window, select **Burn image to disc** and click **Next**.
6. In the Burn image to disc window, select **01. Factory default image** and click **Next**.

7. Follow the instructions on screen to complete the process.

Re-install bundled software without CD

Acer eRecovery stores pre-loaded software internally for easy driver and application re-installation.

1. Boot to Windows XP.
2. Press **<Alt>+<F10>** to open the Acer eRecovery utility.
3. Enter the password to proceed. The default password is six zeros.
4. In the Acer eRecovery window, select Recovery actions and click **Next**.
5. In the Recovery settings window, select **Reinstall applications/drivers** and click **Next**.
6. Select the desired driver/application and follow the instructions on screen to re-install.

At first launch, Acer eRecovery prepares all the needed software and may take few seconds to bring up the software content window.

Change Password

Acer eRecovery and Acer disc-to-disc recovery are protected by a password that can be changed by the user. Follow the steps below to change the password in Acer eRecovery.

1. Boot to Windows XP.
2. Press **<Alt>+<F10>** to open the Acer eRecovery utility.
3. Enter the password to proceed. The default password is six zeros.
4. In the Acer eRecovery window, select **Recovery settings** and click **Next**.
5. In the Recovery settings window, select **Password**: **Change Acer eRecovery password** and click **Next**.
6. Follow the instructions on screen to complete the process.

Acer disc-to-disc recovery

Restore without a Recovery CD

This recovery process helps you restore the C: drive with the original software content that is installed when you purchase your notebook. Follow the steps below to rebuild your C: drive. (Your C: drive will be reformatted and all data will be erased.) It is important to back up all data files before you use this option.

1. Restart the system.
2. While the Acer logo is showing, press <Alt>+<F10> at the same time to enter the recovery process.
3. The message "The system has password protection. Please enter 000000:" is displayed.
4. Enter six zeros and continue.
5. The Acer Recovery main page appears.
6. Use the arrow keys to scroll through the items (operating system versions) and press <Enter> to select.

Multilingual operating system installation

Follow the instructions to choose the operating system and language you prefer when you first power-on the system.

1. Turn on the system.
2. Acer's multilingual operating system selection menu will pop-up automatically.
3. Use the arrow keys to scroll to the language version you want. Press <Enter> to confirm your selection.
4. The operating system and language you choose now will be the only option for future recovery operations.
5. The system will install the operating system and language you choose.

Processor

Item	Specification
Type	Pentium 4
Socket	µ 478
Speed	3.2G
FSB	533MHZ
Minimum operating speed	0 MHz (**If Stop CPU Clock in Sleep State in BIOS Setup** is set to **Enabled**.)

BIOS

Item	Specification
BIOS code programmer	Award
BIOS version	v6.0
BIOS ROM type	Flash ROM
BIOS ROM size	2MB
BIOS ROM package	32-pin DIP package
Support protocol	PCI 2.2, APM1.2, DMI 2.00.1, E-IDE, ACPI 1.0, ESCD 1.03, ANSI ATA 3.0, PnP 1a, Bootable CD-ROM 1.0, ATAPI
Boot from CD-ROM feature	Yes
Support to LS-120 drive	Yes
Support to BIOS boot block feature	Yes

NOTE: The BIOS can be overwritten/upgraded by using the flash utility.

BIOS Hotkey List

Hotkey	Function	Description
DEL	Enter BIOS Setup Utility	Press while the system is booting to enter BIOS Setup Utility.

Main Board Major Chips

Item	Controller
NorthBridge	SiS 661GX
SourthBridge	SiS 964L
Video controller	SiS 964L
Super I/O controller	ITE8705GX
Audio controller	Realtek ALC655
LAN controller	Realtek 8201BL
HDD controller	ITE8705GX
Keyboard controller	ITE8705GX

Memory Combinations

Slot	Memory Module	Total Memory
Slot 1	128, 256, 512MB, 1GB	128MB~ 1GB
Slot 2	128, 256, 512MB, 1GB	128MB~ 1GB
Maximum System Memory Supported		128MB~2GB

System Memory

Item	Specification
Memory slot number	2 slot
Support memory size per socket	128MB / 256MBb/ 512MB/ 1GB
Support maximum memory size	2GB
Support memory type	DDR DRAM
Support memory interface	DDR 266/333/400 MHz
Support memory voltage	2.6 V
Support memory module package	184-pin DIMM
Support to parity check feature	Yes
Support to Error Correction Code (ECC) feature	No
Memory module combinations	You can install memory modules in any combination as long as they match the above specifications.

Cache Memory

Item	Specification
First-Level Cache Configurations	
Cache function control	Enable/Disable by BIOS Setup
Second-Level Cache Configurations	
L2 Cache RAM type	PBSRAM
L2 Cache RAM size	Celeron: 128K Intel P4: 256K/512K PreScoot: 1024K
L2 Cache RAM speed	One-half the processor core clock frequency
L2 Cache function control	Enable/Disable by BIOS Setup
L2 Cache scheme	Fixed in write-back

Video Memory

Item	Specification
Memory size	32 MB or above

Video Interface

Item	Specification
Video controller	SiS661GX
Video controller resident bus	AGP bus
Video Interface	1X/2X/4X/8X
AGP Slot	1
Video interface support	Video YUV texture in all texture formats H/W DVD accelerator

Audio Interface

Item	Specification
Audio controller	SiS 964
Audio controller Type	AC'97,ALC655
Audio Channel	5.1ch
Audio function control	Enable/disable by BIOS Setup
Mono or stereo	Stereo
Resolution	20 bits
Compatibility	Sound Blaster Pro/16 compatible Mixed digital and analog high performance chip Enhanced stereo full duplex operation High performance audio accelerator and AC'97 support Full native DOS games compatibility Virtual FM enhances audio experience through real-time FM-to-Wavetable conversion MPU-401(UART mode) interface for wavetable synthesizers and MIDI devices Integrated dual game port Meets AC'97and WHQL specifications
Music synthesizer	Yes, internal FM synthesizer
Sampling rate	48 KHz (max.)
MPU-401 UART support	Yes
Microphone jack	Supported
Headphone jack	Supported

IDE Interface

Item	Specification
IDE controller	SiS 964
IDE controller resident bus	PCI bus
Number of IDE channel	2 x ATA133
Support IDE interface	E-IDE (up to PIO mode-4 and Ultra DMA 33/66/100/133), ANSIS ATA rev.3.0 ATAPI
Support bootable CD-ROM	Yes

Floppy disk drive Interface

Item	Specification
Floppy disk drive controller	ITE8705GX
Floppy disk drive controller resident bus	ISA bus
Support FDD format	360KB, 720KB, 1.2MB, 1.44MB, 2.88MB

Parallel Port

Item	Specification
Parallel port controller	ITE8705GX
Parallel port controller resident bus	ISA bus
Number of parallel ports	1
Support ECP/EPP	SPP / Bi-directional / ECP / EPP
Connector type	25-pin D-type female connector
Parallel port function control	Enable/disable by BIOS Setup
Optional ECP DMA channel (in BIOS Setup)	DMA channel 1 DMA channel 3
Optional parallel port I/O address (via BIOS Setup)	378h 278h
Optional parallel port IRQ (via BIOS Setup)	IRQ5 IRQ7

Serial Port

Item	Specification
Serial port controller	ITE8705GX
Serial port controller resident bus	ISA bus
Number of serial port	1
16550 UART support	Yes
Connector type	9-pin D-type female connector
Optional serial port I/O address (via BIOS Setup)	COM1: 2F8h, 3E8h, 2E8h COM2: 3E8h, 3F8h, 2F8h
Optional serial port IRQ (via BIOS Setup)	COM1: IRQ 3, and 4 COM2: IRQ 4, and 3

USB Port

Item	Specification
Universal HCI	USB 2.0
USB Class	Support legacy keyboard for legacy mode
USB Number	8 (2 front , 4 rear , 2 internal)

Environmental Requirements

Item	Specifications
Temperature	
Operating	+10 ~ +35°C
Non-operating	-20 ~ +60°C (Storage package)
Humidity	
Operating	20% to 80% RH
Non-operating	20% to 80% RH
Vibration	
Operating (unpacked)	5 ~ 16 Hz: 0.015 mm 16 ~ 250 Hz: 0.21 G
Non-operating (packed)	5 ~ 27.1 Hz: 0.6 G 27.1 ~ 50 Hz: 0.016 mm 50 ~ 500 Hz: 2 G

Mechanical Specifications

Item	Specification
Weight One 3 ½ FDD and one 3.5 HDD (without packing)	Varied by local configuration
Dimensions (main footprint)	180(w)x360(H)x420(D)mm

Power Management

Devices	S1	S3	S4	S5
Power Switch	v	v	v	v
PS/2 Mouse/Keyboard	v	v	v	v
USB Devices	Reserve	Reserve	Reserve	Reserve
LAN	v	v	v	v
RTC	v	v	v	v
PME	v	v	v	v
Modem (Ring)	v	v	v	v

- ❑ Devices wake up from S3 should be less than 5 seconds
- ❑ Devices wak up from S5 should be less than 10 seconds

ACPI LED Status State

System State	Power LED State
S0	Steady Green
S1	Steady Amber
S3	Steady Amber
S4/S5	OFF

Power Management Function (ACPI support function)

Device Standby Mode

- Independent power management timer for hard disk drive devices (0-15 minutes, time step=1 minute).
- Hard disk drive goes into Standby mode (for ATA standard interface).
- Disable V-sync to control the VESA DPMS monitor.
- Resume method: device activated (Keyboard for DOS, keyboard & mouse for Windows).
- Resume recovery time: 3-5 sec.

Global Standby Mode

- Global power management timer (2-120 minutes, time step=10 minute).
- Hard disk drive goes into Standby mode (for ATA standard interface).
- Disable H-sync and V-sync signals to control the VESA DPMS monitor.
- Resume method: Return to original state by pushing external switch button, modem ring in, keyboard and mouse for APM mode.
- Resume recovery time: 7-10 sec.

Suspend Mode

- Independent power management timer (2-120 minutes, time step=10 minutes) or pushing external switch button.
- CPU goes into SMM.
- CPU asserts STPCLK# and goes into the Stop Grant State.
- LED on the panel turns amber colour.
- Hard disk drive goes into SLEEP mode (for ATA standard interface).
- Disable H-sync and V-sync signals to control the VESA DPMS monitor.
- Ultra I/O and VGA chip go into power saving mode.
- Resume method: Return to original state by pushing external switch button, modem ring in, keyboard and mouse for APM mode.
- Return to original state by pushing external switch button, modem ring in and USB keyboard for ACPI mode.

ACPI

- ACPI specification 1.0b.
- S0, S1, S3 and S5 sleep state support.
- On board device power management support.
- On board device configuration support.

System Utilities

Most systems are already configured by the manufacturer or the dealer. There is no need to run Setup when starting the computer unless you get a Run Setup message.

The Setup program loads configuration values into the battery-backed nonvolatile memory called CMOS RAM. This memory area is not part of the system RAM.

NOTE: If you repeatedly receive Run Setup messages, the battery may be bad/flat. In this case, the system cannot retain configuration values in CMOS.

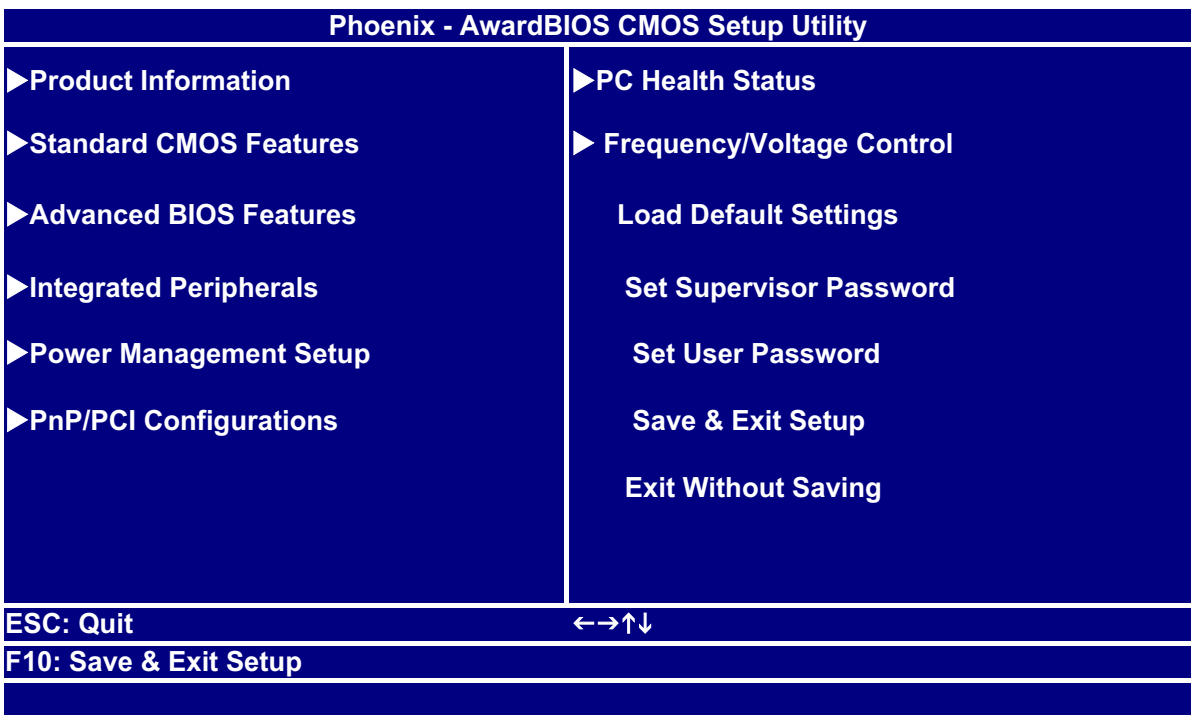
Before you run Setup, make sure that you have saved all open files. The system reboots immediately after you exit Setup.

Entering Setup

Power on the computer and the system will start POST (Power On Self Test)process. When the message of "`Press DEL to enter SETUP`" appears on the screen, press the key of [Delete] to enter the setup menu.

NOTE: If the message disappears before you respond and you still wish to enter Setup, restart the system by turning it OFF and On. You may also restart the system by simultaneously pressing [Ctrl+Alt+Delete].

The Setup Utility main menu then appears:



The command line at the bottom of the menu tells you how to move within a screen and from one screen to another.

- To select an option, move the highlight bar by pressing ↑ or ↓ then press ENTER.
- To change a parameter setting, press ← or → until the desired setting is found.
- Press ESC to return to the main menu. If you are already in the main menu, press ESC again to exit Setup.

The parameters on the screens show default values. These values may not be the same as those in your system.

The grayed items on the screens have fixed settings and are not user-configured.

NOTE: Due to the application of a new version of BIOS Setup program, you may find the BIOS menu is largely different from the former models. However, you will soon find out that this version is much more compact than the former ones.

The items in the main menu are explained below:

- ***Product Information***

  To introduce the Product Name,System P/N and MainBoard ID...etc.

- ***Standard CMOS Features***

  The basic system configuration can be set up through this menu.

- ***Standard BIOS Features***

  The advanced system features can be set up through this menu.

- ***Advancted Chipset Features***

  The values for the chipset can be changed through this menu, and the system performance can be optimized.

- ***Integrated Peripherals***

  All onboard peripherals can be set up through this menu.

- ***Power Management Setup***

  All the items of Green function features can be set up throgh this menu.

- ***PnP/PCI Configurations***

  The system's PnP/PCI settings and parameters can be modified through this menu.

- ***PC Health Staus***

  This will display the current status of your PC.

- ***Frequency/Voltage Control***

  Frequency and voltage settings can be loaded through this menu.

- ***Load Default Settings***

  These parameter settings can be loaded through this menu, however, the stable default values may be affected.

- ***Set Supervisor/User Password***

  The supervisor/user password can be set up through this menu.

- ***Save & Exit Setup***

  Save CMOS value settings to CMOS and exit setup.

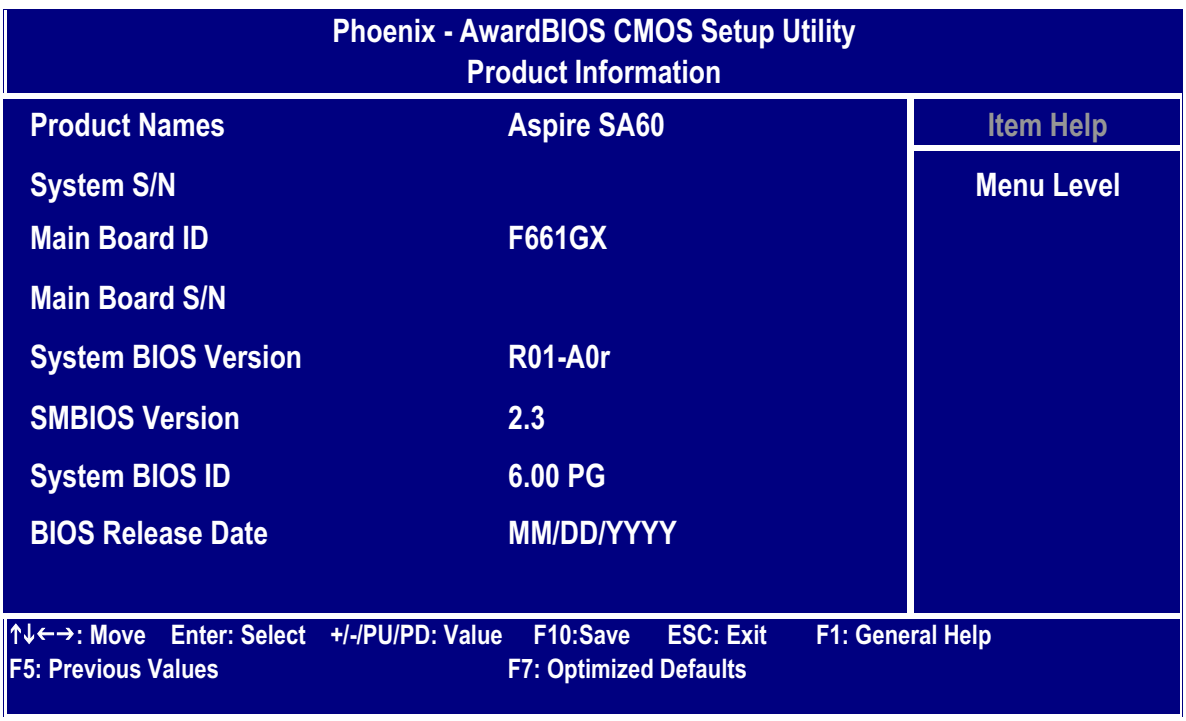
- ***Exit Without Saving***

  Abandon all CMOS value changes and exit setup.

Product Information

The screen below appears if you select Product Information from the main menu:

The Product Information menu contains general data about the system, such as the product name, serial number, BIOS version, etc. These information is necessary for troubleshooting (maybe required when asking for technical support).



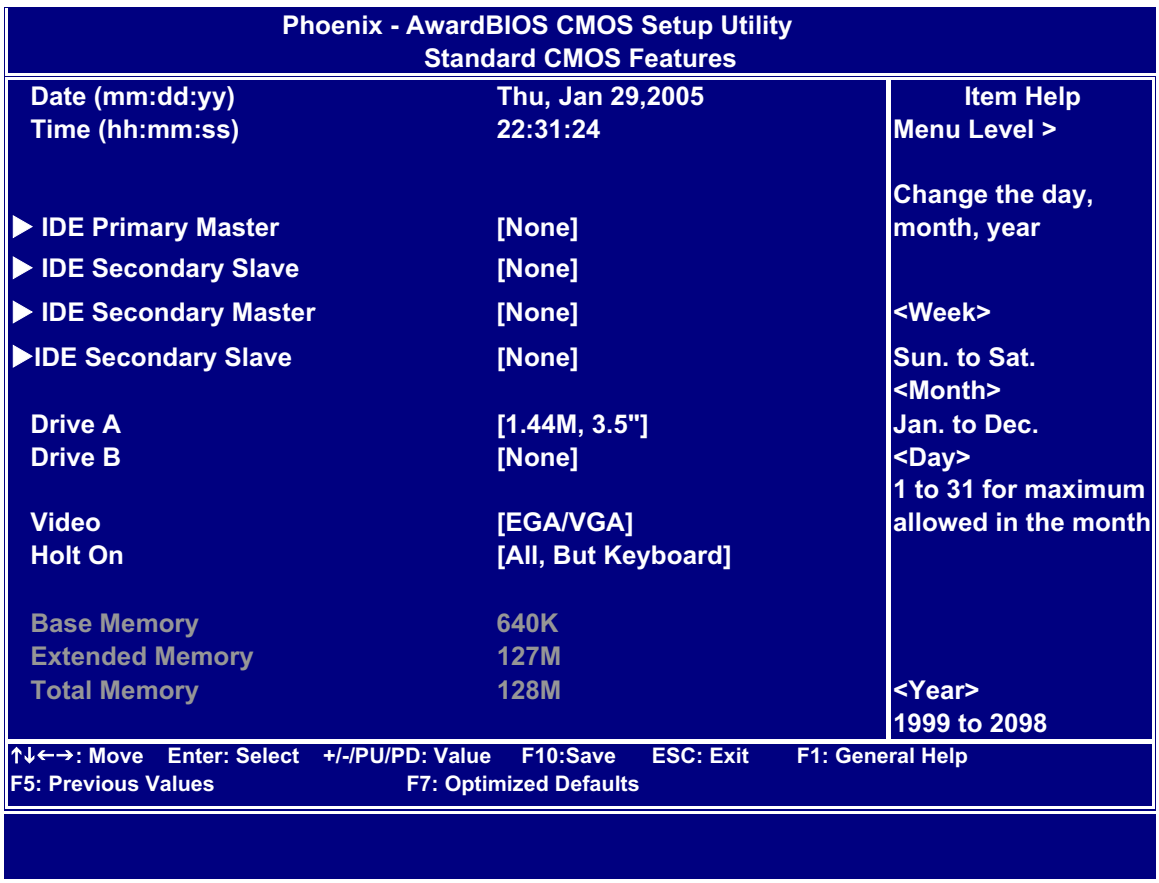
The following table describes the parameters found in this menu:

Parameter	Description
Product Names	Displays the model name of your system.
System S/N	Displays your system's serial number.
Main Board ID	Displays the main board's identification number.
Main Board S/N	Displays your main board's serial number.
System BIOS Version	Specifies the version of your BIOS utility.
SMBIOS version	The System Management Interface (SM) BIOS allows you to check your system hardware components without actually opening your system. Hardware checking is done via software during start up. This parameter specifies the version of the SMBIOS utility installed in your system.
System BIOS ID	Display the system BIOS ID
BIOS Release Date	Displays the BIOS latest release date

Standard CMOS Features

Select Standard CMOS Features from the main menu to configure some basic parameters in your system.

The following screen shows the Standard CMOS Features menu:


Phoenix - AwardBIOS CMOS Setup Utility
Standard CMOS Features
Date (mm:dd:yy) Thu, Jan 29,2005
Time (hh:mm:ss) 22:31:24
▶ IDE Primary Master [None]
▶ IDE Secondary Slave [None]
▶ IDE Secondary Master [None]
▶IDE Secondary Slave [None]
Drive A [1.44M, 3.5"]
Drive B [None]
Video [EGA/VGA]
Holt On [All, But Keyboard]
Base Memory 640K
Extended Memory 127M
Total Memory 128M
Item Help
Menu Level >
Change the day, month, year
<Week>
Sun. to Sat.
<Month>
Jan. to Dec.
<Day>
1 to 31 for maximum allowed in the month
<Year>
1999 to 2098
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

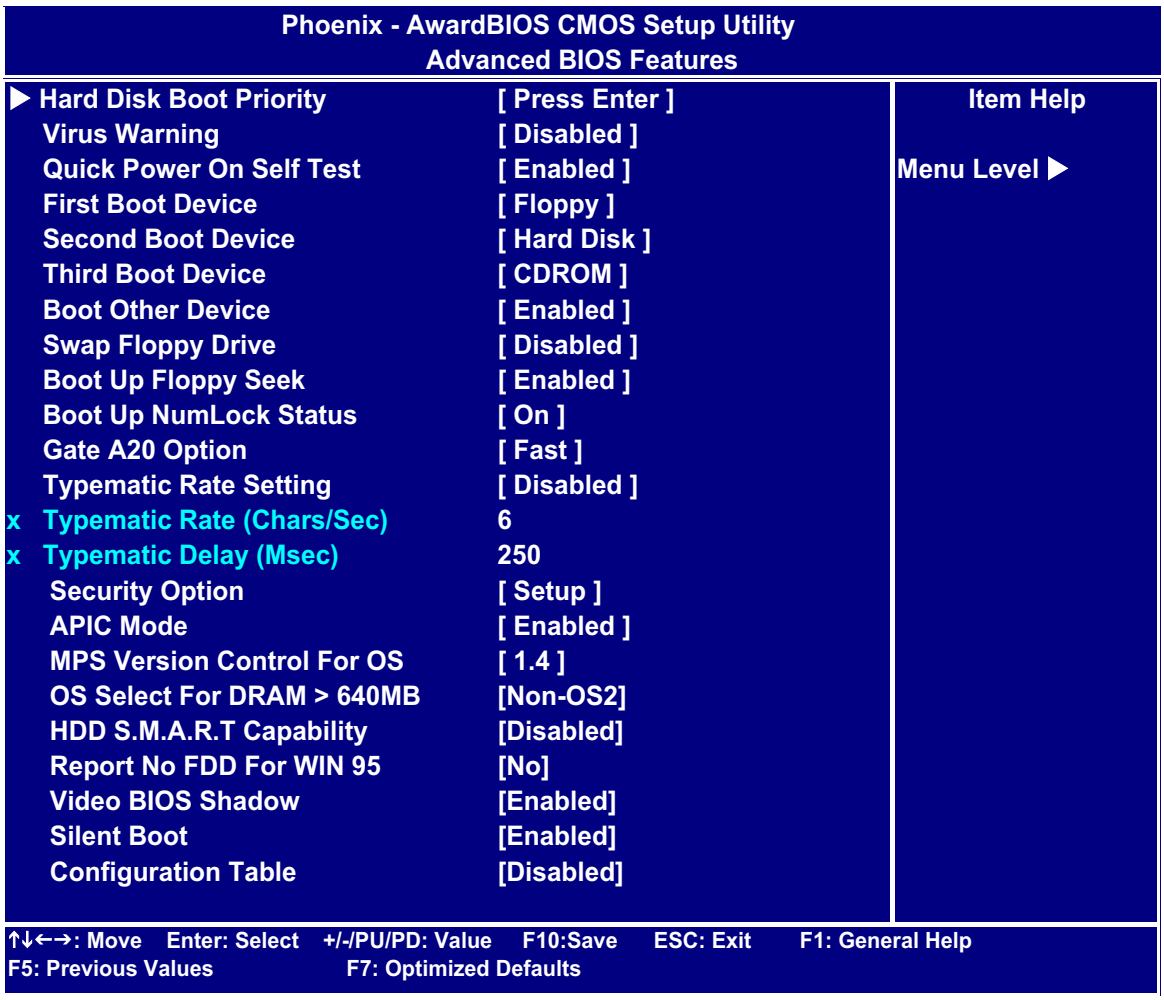
The following table describes the parameters found in this menu. Settings in **boldface** are the default and suggested settings.

Parameter	Description	Options
Date	Lets you set the date following the weekday-month-day-year format	Weekday: Sun, Mon...Sat Month: Jan., Feb...Dec. Day: 1 to 31 Year: 1999 to 2098
Time	Lets you set the time following the hour-minute-second format	Hour: 0 to 23 Minute: 0 to 59 Second: 0 to 59
IDE Primary Channel Master	Allows you to configure the hard disk drive connected to the master port of IDE channel. To enter the IDE Primary Master setup, press [Enter]. The IDE CD-ROM is always automatically detected.	IDE Device Model Number: None
IDE Primary Channel Slave	Allows you to configure the hard disk drive connected to the slave port of IDE channel. To enter the IDE Primary Slave setup, press [Enter]. The IDE CD-ROM is always automatically detected.	IDE Device Model Number: None

Parameter	Description	Options
IDE Secondary Channel Master	Allows you to configure the hard disk drive connected to the master port of IDE channel 1. To enter the IDE Channel 1 Master setup, press [Enter]. The IDE CD-ROM is always automatically detected.	IDE Device Model Number: None
IDE Secondary Channel Slave	Allows you to configure the hard disk drive connected to the slave port of IDE channel 2. To enter the IDE Channel Secondary Master setup, press [Enter]. The IDE CD-ROM is always automatically detected.	IDE Device Model Number: None
Drive A	Allows you to configure your floppy drive A.	None 360 KB, 5.25-inch 1.2 MB, 5.25-inch 720 KB, 3.5-inch **1.44M, 3.5 - inch** 2.88 MB, 3.5-inch
Drive B	Allows you to configure your floppy drive B.	**None** 360 KB, 5.25-inch 1.2 MB, 5.25-inch 720 KB, 3.5-inch 1.44M, 3.5 - inch 2.88 MB, 3.5-inch
Video	This item specifies the type of video card in use. The default setting is VGA/EGA. Since current PCs use VGA only, this function is almost useless and may be disregarded in the future.	**VGA/EGA** CGA40 CGA80 Mono
Halt On	This parameter enables you to control the system stops in case of Power On Self Test errors (POST).	All Errors No Errors **All, but Keyboard** All, but Diskette All, by Disk/Key
Base Memory	Refers to the option of memory that is available to standard DOS programs. DOS systems have an address space od 1MB, but the top 384KB (called high memory) is reserved for system use. This leaves 640 KB of conventional memory. Everything above 1MB is either extended or extended memory.	The BIOS POST will determine the amount of base (or conventional) memory installed in the sytem.
Extended Memory	Memory above and beyond the standard 1MB of base memory that DOS supports. Extended memory is only available in PCs with an Intel 80286 or later microprocessor. Extended memory is not configured in any special manner and is therefore unavailable to most DOS programs. However, MS Windows and OS/2 can use extended memory.	The BIOS determines how much extended memory is present during the POST.
Total Memory	Total based and extended memory, and I/O ROM 384KB available to the system.	total memory of the system.

Advanced BIOS Features

The following screen shows the Advanced BIOS Features:


Phoenix - AwardBIOS CMOS Setup Utility
Advanced BIOS Features
▶ Hard Disk Boot Priority [Press Enter]
Virus Warning [Disabled]
Quick Power On Self Test [Enabled]
First Boot Device [Floppy]
Second Boot Device [Hard Disk]
Third Boot Device [CDROM]
Boot Other Device [Enabled]
Swap Floppy Drive [Disabled]
Boot Up Floppy Seek [Enabled]
Boot Up NumLock Status [On]
Gate A20 Option [Fast]
Typematic Rate Setting [Disabled]
x Typematic Rate (Chars/Sec) 6
x Typematic Delay (Msec) 250
Security Option [Setup]
APIC Mode [Enabled]
MPS Version Control For OS [1.4]
OS Select For DRAM > 640MB [Non-OS2]
HDD S.M.A.R.T Capability [Disabled]
Report No FDD For WIN 95 [No]
Video BIOS Shadow [Enabled]
Silent Boot [Enabled]
Configuration Table [Disabled]
Item Help
Menu Level ▶
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

The following table describes the parameters found in this menu. Settings in **boldface** are the default and suggested settings.

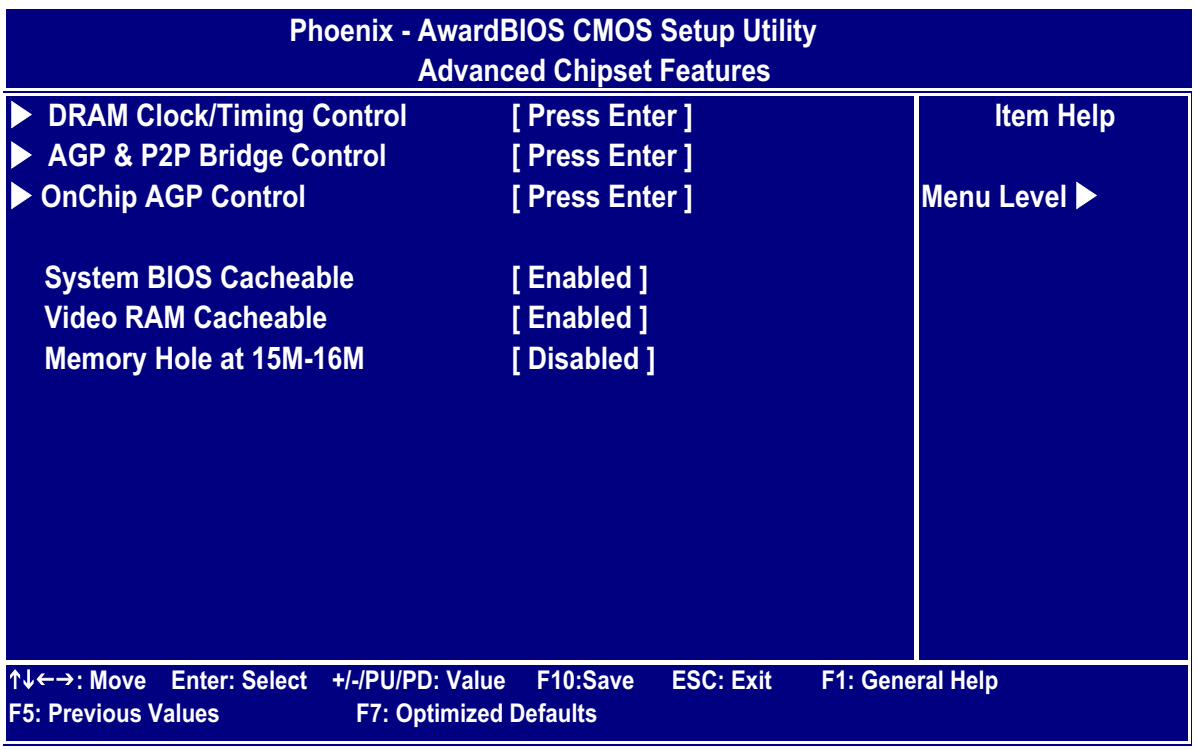
Parameter	Description	Options
Hard Disk Boot Priority	Select Hard Disk Boot Device Priority	**Press [Enter]**
Virus Warning	Select to display CPU Feature	**Press [Enter]**
Quick Power On Self Test	This parameter speeds up POST by skipping some items that are normally checked.	**Enabled** Disabled
First /SecondThird Boot Device	The items allow you to set the sequence of boot device where BIOS attempts to load the disk operating system.	Floppy, LS120, Hard Disk, CD-ROM, ZIP100, USB-FDD, USB-ZIP, LAN, Disabled (Disable this sequence). The sequence following the order of Floppy, HDD and CD-ROM is recommended.
Boot Other Device	This parameter allows you to specify the system boot up search sequence.	**Enabled** Disabled
Swap Floppy Drive	Setting to Enabled will swap floppy drive a: and b:.	Enabled **Disabled**

Parameter	Description	Options
Boot Up Floppy Seek	Setting to Enabled will make BIOS seek floppy drive a: before booting the system.	**Enabled** Disabled
Boot Up NumLock Status	Sets the NumLock status when the system is powered on. Setting to On will turn on the NumLock key when the system is powered on. Setting to Off will allows users to use the arrow keys on the numeric keypad.	**On** Off
Gate A20 Option	This item is to set the Gate A20 status. A20 refers to the first 64KB of extended memory. When the default value Fast is selected, the Gate A20 is controlled by port 92 or chipset specific method resulting in faster system performance. When Normal is selected, A20 is controlled by a keyboard controller or chipset hardware.	**Fast** Normal
Typematic Rate Setting	This item is used to enable or disable the typematic rate setting including Typematic Rate and Typematic Delay.	Enabled **Disabled**
Security Option	Specifies the type of BIOS password protection that is implemented. Setup means that the password prompt appears only when end users try to run Setup. System means that a password prompt appears every time when the computer is powered on or when end users try to run Setup.	**Setup** System
APIC Mode	This field is used to enable or disable the APIC (Advanced Programmable Interrupt Controller). Due to compliance with PC2001 design guide, the system is able to run in APIC mode. Enabling APIC mode will expand available IRQ resources from the system.	**Enabled** Disabled
MPS Version Control For OS	This option is used to set up the version of MPS Table used in NT4.0 OS.	**1.4** 1.1
OS Select For DRAM > 640MB	This item is only required if you have installed more than 64MB of memory and you are running the OS/2 operating system.	**Non-OS2** OS2
HDD S.M.A.R.T Capability	The S.M.A.R.T (Self-Monitoring, Analysis, and Reporting Technology) system is a diagnostics technology that monitors and predicts device performance.	Enabled **Disabled**
Report No FDD For WIN 95	Whether to show NO FDD message for Win95.	
Video BIOS Shadow	Enabled copies Video BIOS to shadow RAM Improves perfermanc.	Disabled **Enabled**
Silent Boot	Silent Boot setting	Disabled **Enabled**
Configuration Table	Show summary screen	**Disabled**

Advanced Chipset Features

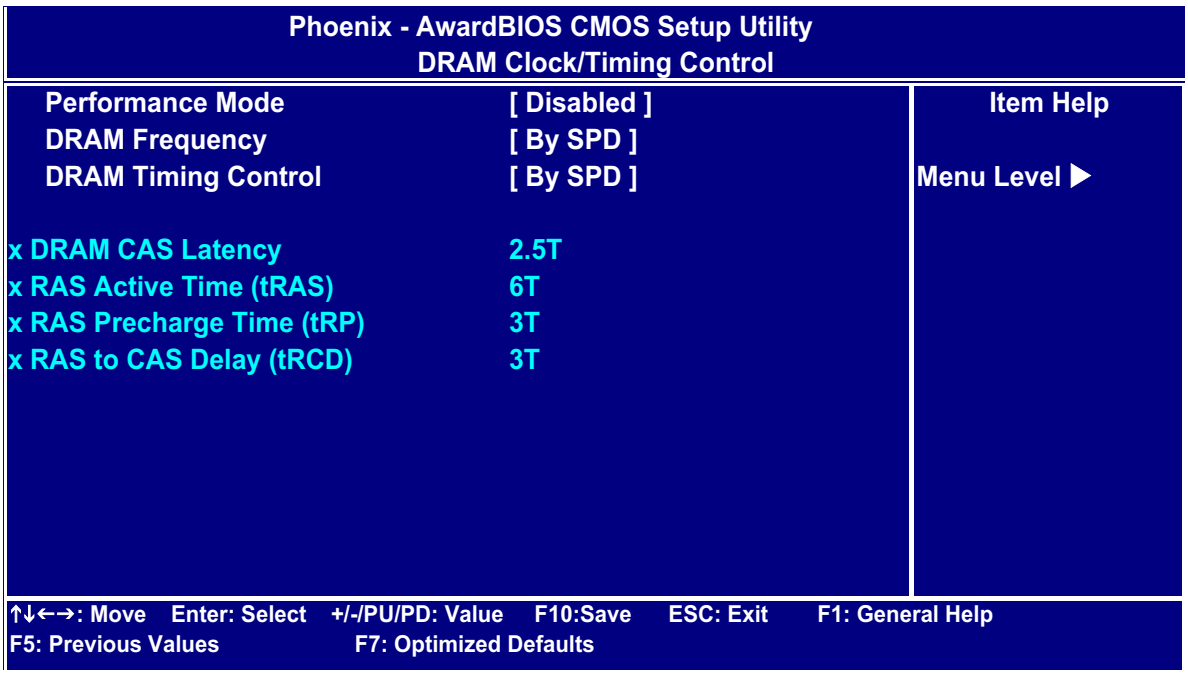
The advanced chipset features setup option is used to change the values of the chipset registers. These registers control most of the system options in the computer.

NOTE: Change these settings only if you are familiar with the chipset.


Phoenix - AwardBIOS CMOS Setup Utility
Advanced Chipset Features
DRAM Clock/Timing Control [Press Enter]
AGP & P2P Bridge Control [Press Enter]
OnChip AGP Control [Press Enter]
System BIOS Cacheable [Enabled]
Video RAM Cacheable [Enabled]
Memory Hole at 15M-16M [Disabled]
Item Help
Menu Level ▶
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

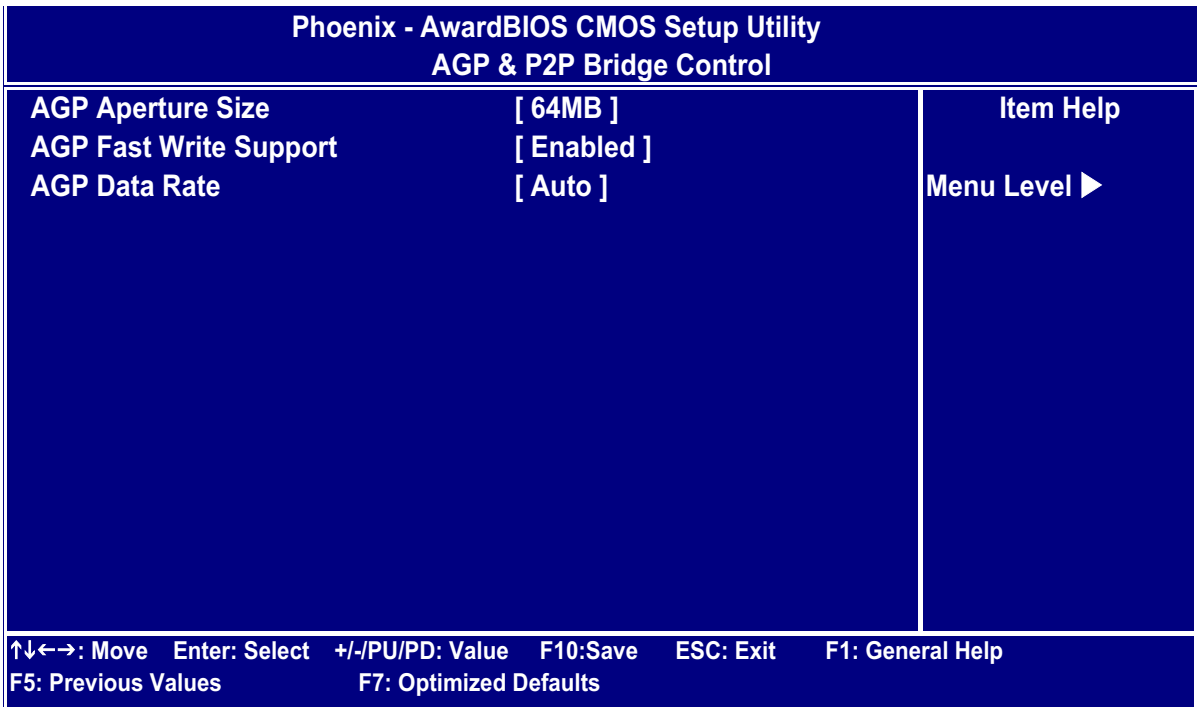
Parameter	Description	Option
DRAM Clock/Timing Control	This submenu is used to set some parameters of memory controller.	**[Press Enter]**
AGP & P2P Bridge Control	This submenu is used to set some parameter of AGP controller	**[Press Enter]**
OnChip AGP Control	This submenu is used to set some parameters of on board VGA	**[Press Enter]**
System BIOS Cacheable	This item will allow the System BIOS fleetness memorize function	**Enabled** Disabled
Video RAM Cacheable	Select “Enabled” to allow caching of the Video RAM which may improve performance. If any other program writes to this memory area, a system error may result.	**Enabled** Disabled
Memory Hole At 15M-16M	You can reserve this area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. The user information of peripherals that need to use this area of system memory usually discuss their memory requirements.	Enabled **Disabled**

DRAM Clock/Timing Control


Phoenix - AwardBIOS CMOS Setup Utility
DRAM Clock/Timing Control
Performance Mode [Disabled]
DRAM Frequency [By SPD]
DRAM Timing Control [By SPD]
x DRAM CAS Latency 2.5T
x RAS Active Time (tRAS) 6T
x RAS Precharge Time (tRP) 3T
x RAS to CAS Delay (tRCD) 3T
Item Help
Menu Level ▶
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

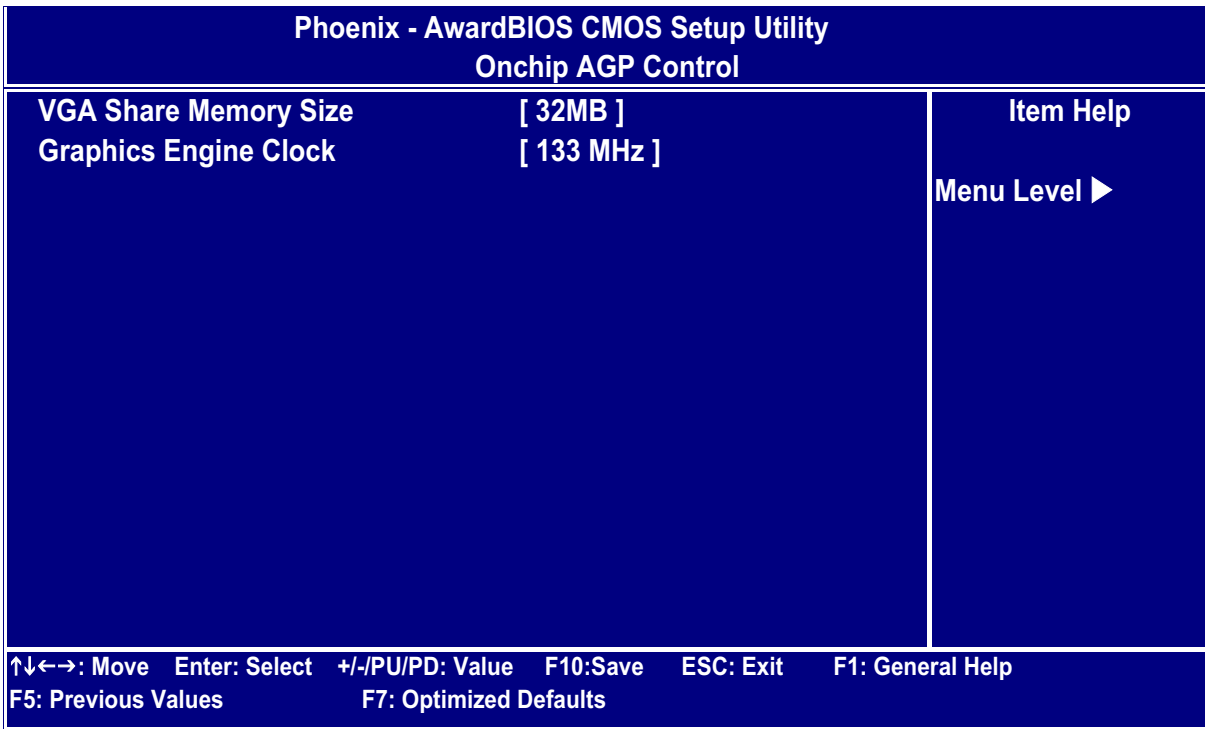
Parameter	Description	Option
Performance Mode	User can use this item to Enable/Disable the system performance	Enabled **Disabled**
DRAM Frequency	Offer user to detect or select the correct DRAM Frequency.	**[By SPD]** 100 MHz 133 MHz 166 MHz 200 MHz
DRAM Timing Control	Offer user to detect or select the correct DRAM Timing.	**[By SPD]** Manual

AGP & P2P Bridge Control


Phoenix - AwardBIOS CMOS Setup Utility
AGP & P2P Bridge Control
AGP Aperture Size
[64MB]
AGP Fast Write Support
[Enabled]
AGP Data Rate
[Auto]
Item Help
Menu Level ▶
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

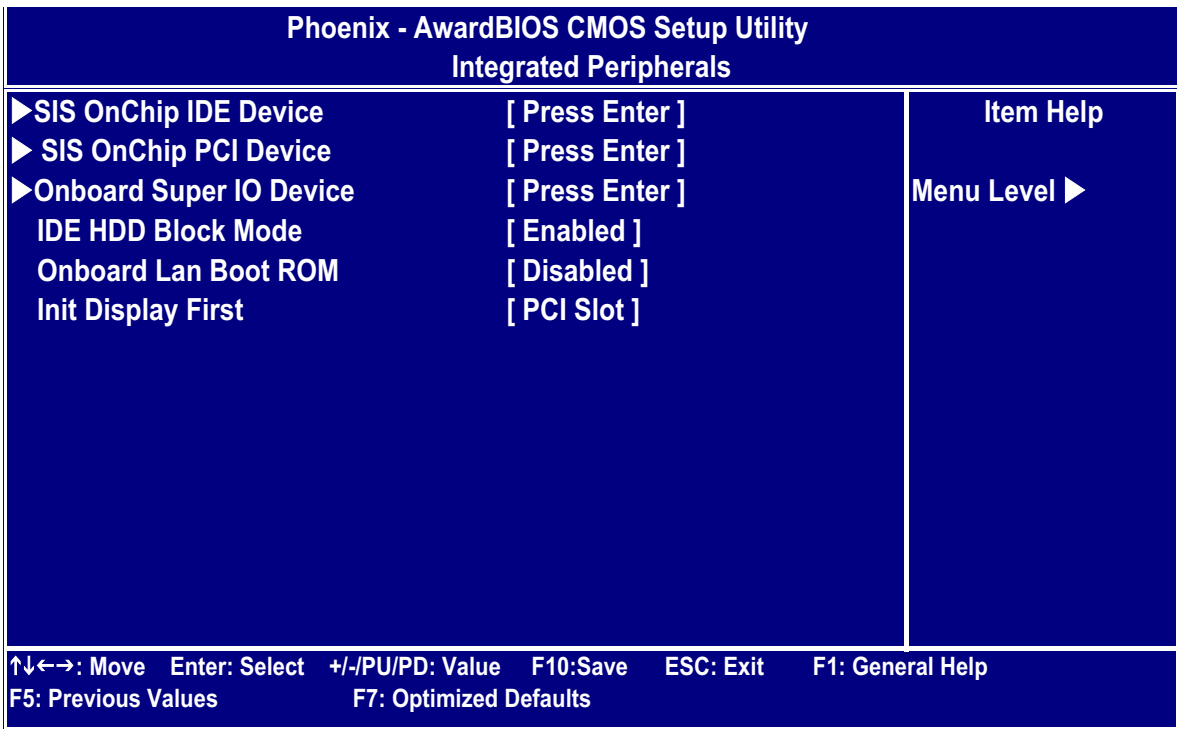
Parameter	Description	Option
AGP Aperture Size	To set AGP Aperture size.(The size of the Memory which shared by AGP and Memory.)	32MB/**64MB**/128MB/256MB/ 512MB
AGP Fast Write Support	Support AGP fast write or not.	Disabled **Enabled**
AGP Data Rate	Select AGP Data Rate	**Auto**/1X/2X/4X/8X

Onchip AGP Control


Phoenix - AwardBIOS CMOS Setup Utility
Onchip AGP Control
VGA Share Memory Size [32MB]
Graphics Engine Clock [133 MHz]
Item Help
Menu Level ▶
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

Parameter	Description	Option
VGA Share Memory Size	Select VGA Share Memory Size	16MB/**32MB**/64MB/128MB
Graphics Engine Clock	To detect or set the Graphics Engine Clock.	100MHZ **133MHZ** 166MHz 200MHz

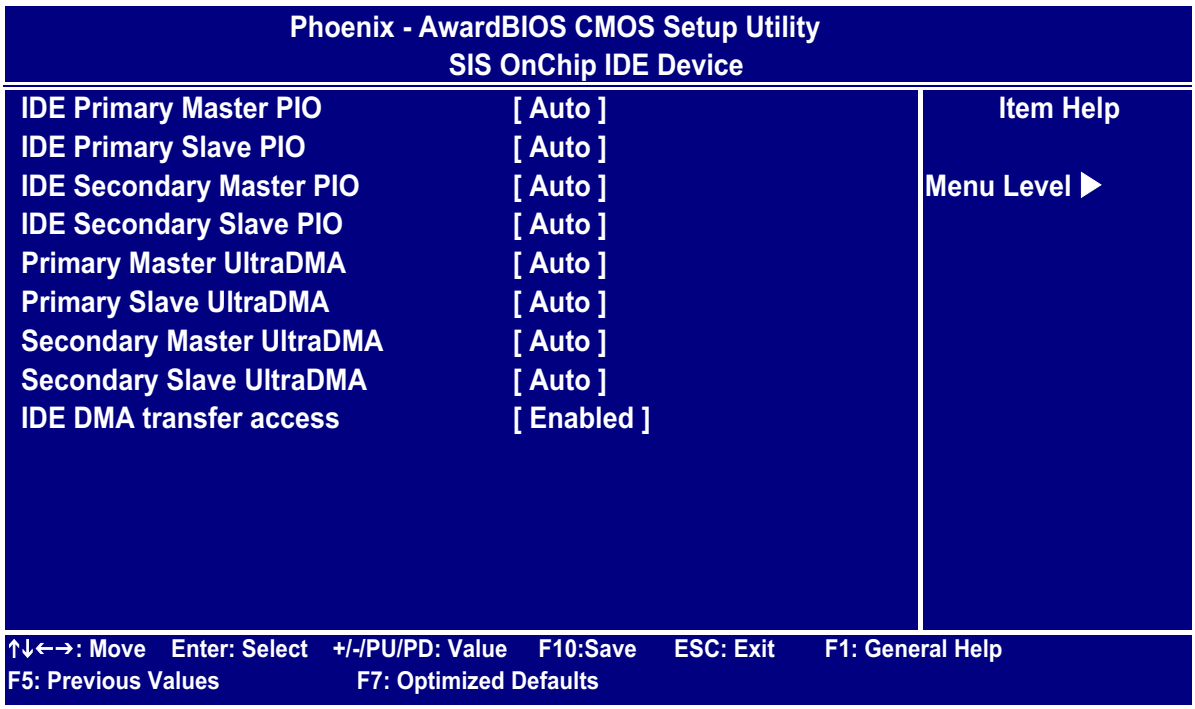
Integrated Peripherals


Phoenix - AwardBIOS CMOS Setup Utility
Integrated Peripherals
SIS OnChip IDE Device [Press Enter]
SIS OnChip PCI Device [Press Enter]
Onboard Super IO Device [Press Enter]
IDE HDD Block Mode [Enabled]
Onboard Lan Boot ROM [Disabled]
Init Display First [PCI Slot]
Item Help
Menu Level
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

Parameter	Description	Option
SiS OnChip IDE Device	Use the arrow keys to select your options; press <**Enter**> key to enter the setup sub-menu. The options and setting methods are discussed below.	**[Press Enter]**
SIS OnChip PCI Device		**[Press Enter]**
Onboard Super IO Device		**[Press Enter]**
IDE HDD Block Mode	Block mode is also called block transfer, multiple commands or multiple sector read/write. If your IDE hard drive supports block mode (most new drives do), select "Enabled" for automatic detection of the optimal number of block read/write per sector the drive can support.	Disabled **Enabled**
Onboard Lan Boot ROM	Decide whether to invoke the boot ROM of onboard LAN chip.	**[Disabled]**
Init Display First	If you installed a PCI VGA card and an AGP card at the same time, this item lets you decide which one is the initial display card.	PCI Slot **AGP**

SIS OnChip IDE Device

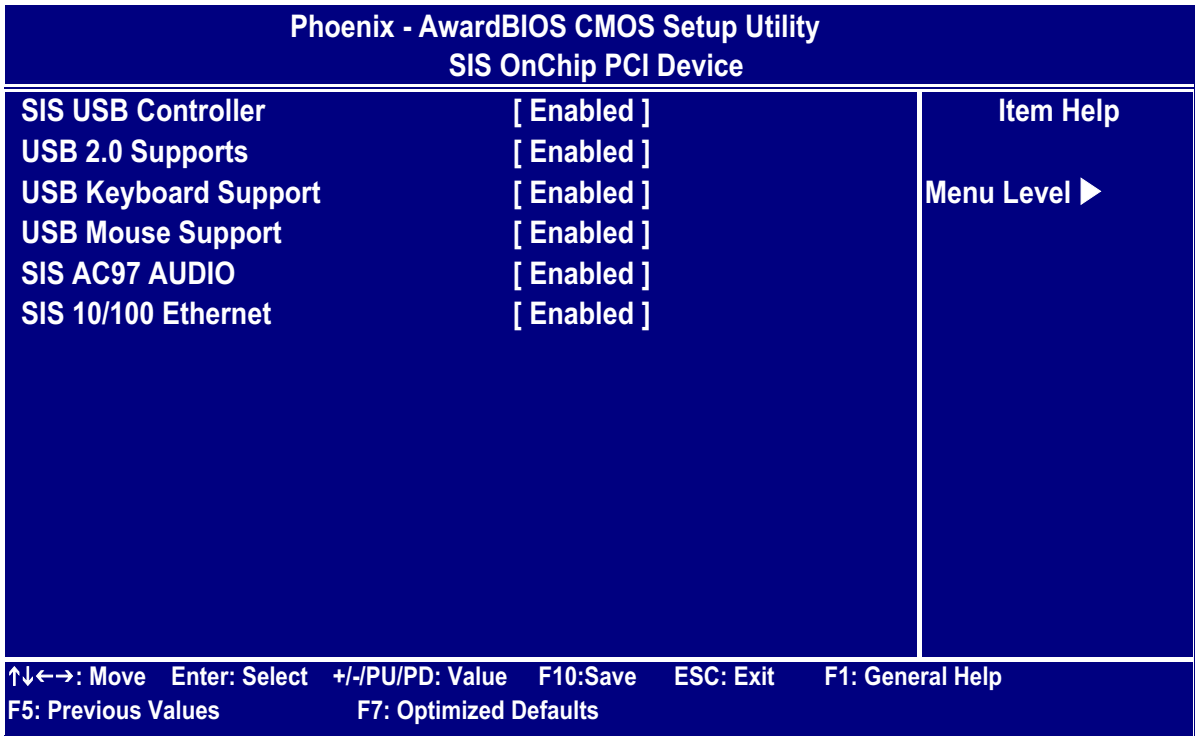
Press [Enter] to enter the sub-menu and the following screen appears:


Phoenix - AwardBIOS CMOS Setup Utility
SIS OnChip IDE Device
IDE Primary Master PIO [Auto]
IDE Primary Slave PIO [Auto]
IDE Secondary Master PIO [Auto]
IDE Secondary Slave PIO [Auto]
Primary Master UltraDMA [Auto]
Primary Slave UltraDMA [Auto]
Secondary Master UltraDMA [Auto]
Secondary Slave UltraDMA [Auto]
IDE DMA transfer access [Enabled]
Item Help
Menu Level ▶
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

SIS OnChip IDE Device

Parameter	Description	Option
IDE Primary Master PIO IDE Primary Slave PIO IDE Secondary Master PIO IDE Secondary Slave PIO	Setting these items to “Auto” activates the HDD speed auto-detect function. The PIO mode specifies the data transfer rate of the HDD. For example, mode 0 data transfer rate is 3.3MB/s, mode 1 is 5.2 MB/s, mode 2 is 8.3MB/s, mode 3 is 11.1 MB/s and mode 4 is 16.6MB/s. If your hard disk performance becomes unstable, you may manually try the slower mode.	**Auto** Mode 0 Mode 1 Mode 2 Mode 3 Mode 4
Primary Master UltraDMA Primary Slave UltraDMA Secondary Master UltraDMA Secondary Slave UltraDMA	These items allow you to Enable/Disable the Ultra DMA supported by the hard disk drive connected to your primary and secondary IDE connectors.	**Auto** Disabled
IDE DMA transfer access	This item is allow you to Enable/Disable DMA function.	Disabled **Enabled**

SIS OnChip PCI Device

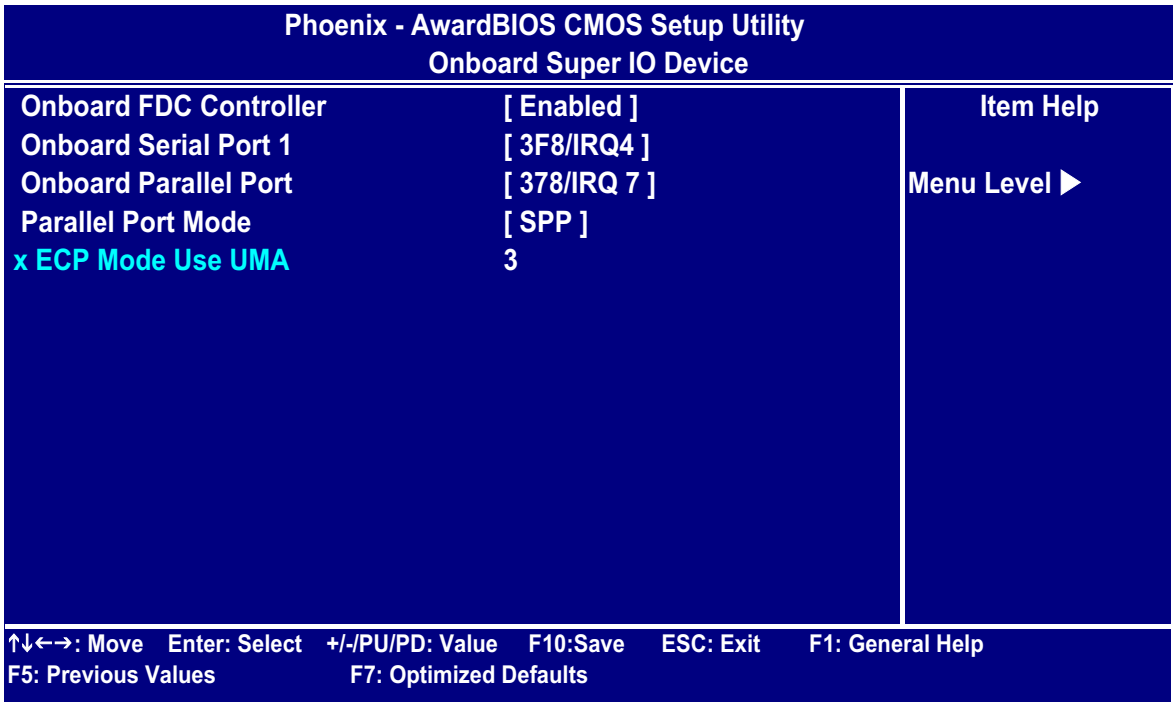

Phoenix - AwardBIOS CMOS Setup Utility
SIS OnChip PCI Device
SIS USB Controller [Enabled]
USB 2.0 Supports [Enabled]
USB Keyboard Support [Enabled]
USB Mouse Support [Enabled]
SIS AC97 AUDIO [Enabled]
SIS 10/100 Ethernet [Enabled]
Item Help
Menu Level ▶
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

Press [Enter] to enter the sub-menu and the following screen appears:

SIS OnChip PCI Device

Parameter	Description	Option
SIS USB Controller	This item is used to enable or disable the on-chip USB.	**Enabled** Disabled
USB 2.0 Supports	Enable this item if the system supports USB 2.0.	**Enabled** Disabled
USB Keyboard Support	This item lets you enable or disable the USB keyboard driver within the onboard BIOS. The keyboard driver simulates legacy keyboard command and lets you use a USB keyboard during POST or after boot if you do not have a USB driver in the operating system.	Disabled Enabled **Auto**
USB Mouse Support	This item lets you enable or disable the USB mouse driver within the onboard BIOS. The keyboard driver simulates legacy mouse command and lets you use a USB mouse during POST or after boot if you do not have a USB driver in the operating system.	Disabled Enabled **Auto**
SIS AC97 AUDIO	Enabling the on-die AC97 Audio if no add-on PCI audio device.	**Enabled** Disabled
SIS 10/100M ETHERNET	Enabled or Disabled SIS 10/100M ETHERNET controller	**Enabled** Disabled

Onboard Super IO Device


Phoenix - AwardBIOS CMOS Setup Utility
Onboard Super IO Device
Onboard FDC Controller [Enabled]
Onboard Serial Port 1 [3F8/IRQ4]
Onboard Parallel Port [378/IRQ 7]
Parallel Port Mode [SPP]
x ECP Mode Use UMA 3
Item Help
Menu Level ▶
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

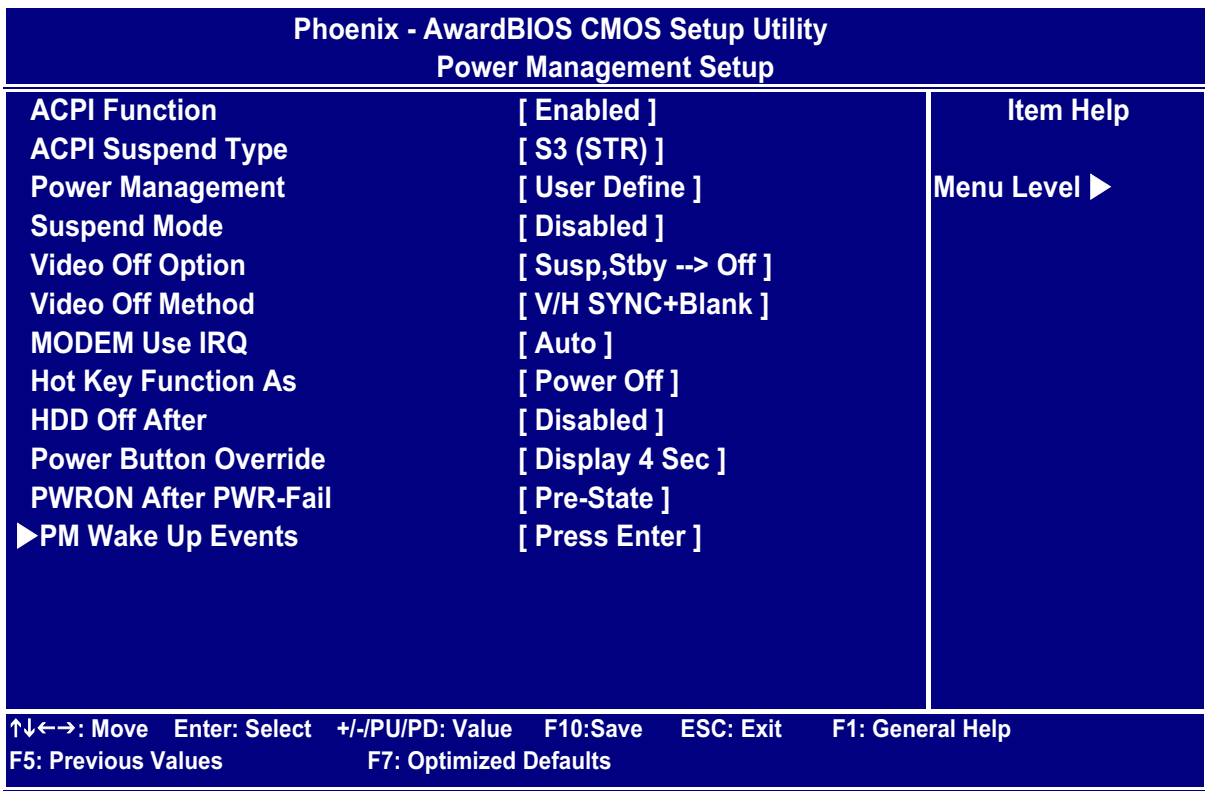
Onboard SuperIO Device

Parameter	Description	Option
Onboard FDC Controller	Enables or disables the onboard floppy disk drive controller.	**Enabled** Disabled
Onboard Serial Port 1	This option is used to assign the I/O address and interrupt request (IRQ) for onboard serial port 1	Disabled **3F8/IRQ4** 2F8/IRQ3 3E8/IRQ4 2E8/IRQ3 Auto
Onboard Parallel Port	This option is used to assign the I/O address and interrupt request (IRQ) for the onboard parallel port.	Disabled **378/IRQ7** 278/IRQ5 3BC/IRQ7
Parallel Port Mode	Enables you to set the data transfer protocol for your parallel port. SPP (Standard Parallel Port), EPP (Enhanced Parallel Port), ECP (Extended Capabilities Port) and ECP+EPP.	**SPP** EPP ECP ECP+EPP
ECP Mode Use DMA	Select a DMA channel for the parallel port when using the ECP mode. This field is only configurable if Parallel Port Mode is set to ECP. The available setting values are 3 and 1.	1 **3**

Power Management Setup

The Power Management menu lets you configure your system to most effectively save energy while operating in a manner consistent with your own style of computer use.

The following screen shows the Power Management parameters and their default settings:

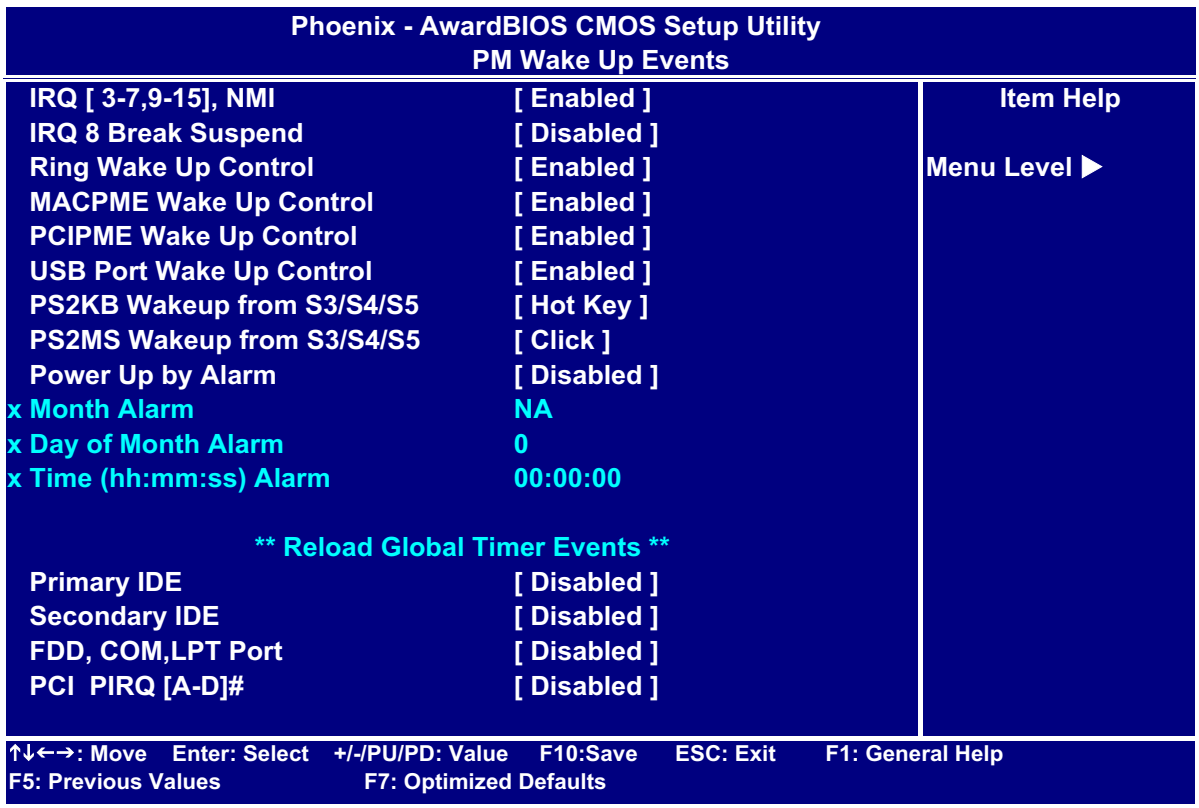

Phoenix - AwardBIOS CMOS Setup Utility
Power Management Setup
ACPI Function [Enabled]
ACPI Suspend Type [S3 (STR)]
Power Management [User Define]
Suspend Mode [Disabled]
Video Off Option [Susp,Stby --> Off]
Video Off Method [V/H SYNC+Blank]
MODEM Use IRQ [Auto]
Hot Key Function As [Power Off]
HDD Off After [Disabled]
Power Button Override [Display 4 Sec]
PWRON After PWR-Fail [Pre-State]
PM Wake Up Events [Press Enter]
Item Help
Menu Level ▶
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

The following table describes the parameters found in this menu. Settings in **boldface** are the default and suggested settings.

Parameter	Description	Options
ACPI Function	This item is to activate the ACPI (Advanced Configuration and Power Management Interface) Function. If your operating system is ACPI aware, such as Windows 98SE/2000/Me, select Enabled.	**Enabled** Disabled
ACPI Suspend Type	This item specifies the power saving modes for ACPI function. S1(POS): The S1 sleep mode is a low power state. In this state, no system context (CPU or chipset) is lost and hardware maintains all system context. S3 (STR): The S3 sleep mode is s power-down state in which power is supplied only to essential components such as main memory and wake-capable devices and all system context is saved to main memory. The information stored in memory will be used to restore the PC to the previous state when an *wake-up* event occurs. S1&S3: Both S1 and S3 will be adopted.	S1 (POS) **S3 (STR)** S1&S3
Power Management	This option is used to set the power management scheme.	**User Define** Min. Saving Max. Saving

Parameter	Description	Options
Suspend Mode	The CPU clock will be stopped and the video signal will be suspended if no Power Management events occur for a specified length of time. Full power function will return when a Power Management event is detected.	**Disabled** 1/2/4/8/12/20/30/40 mins 1 Hour
Video Off Option	This option is used to set video off option. The setting values are always on, suspend> off, susp,stby>off, and all modes>off.	Always On Suspend --> Off **Susp, Stby --> Off** All Modes --> Off
Video Off Method	This item determines the manner in which the monitor is blanked. V/H SYNC+Blank: This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer. Blank Screen: This option only write blanks to the video buffer. DPMS Supported: Initial display power management signaling.	Blank Screen **V/H SYNC+Blank** DPMS
Mode Use IRQ	This setting names the interrupt request (IRQ) line assigned to the modem (if any) on your system. Activity of selected IRQ always awakens the system.	Auto **3**,4,5,7,9,10,11
Hot Key Function As	This item allow user to define the Hot Key.	Disabled **Power off** Suspend
HDD Off After	This option is used to define the continuous HDD idle time before the HDD enters power saving mode. The setting values are disabled and 1 min to 15 min.	**Disabled** 1,2,3,4,5,6,7,8,9,10,11,12,13, 14,15 Min
Power Button Override	This option is used to set the power down method. This function is only valid for systems using an ATX power supply. When “instant off” is selected, press the power switch to immediately turn off power. When “delay 4 sec” is selected, press and hole the power button for four seconds to turn off power.	Instand Off **Delay 4 Sec.**
PWRON Ater PWR-Fail	This item allow user set the machine power state when connect the AC power. "Always off" means the machine is always off when power on; "Always on" means the machine will always power on when connect the AC power; "Pre-State" means the machine state is the same as the last state.	Always Off Always On **Pre-State**
PM Wake Up Events	Disabled: The specified event's activity will not affect the PM Timers/wake up the system. Enabled: The specified event's activity will affect the PM Timers/wake up the system. For example, if you have a modem on IRQ3, you can turn On IRQ3 as a wake-up event, so an interrupt from the modem can wake up the system. Or you may wish to turn Off IRQ12 (the PS/2) mouse as a wake-up event, so accidentally brushing the mouse does not awaken the system.	**[Press Enter]**

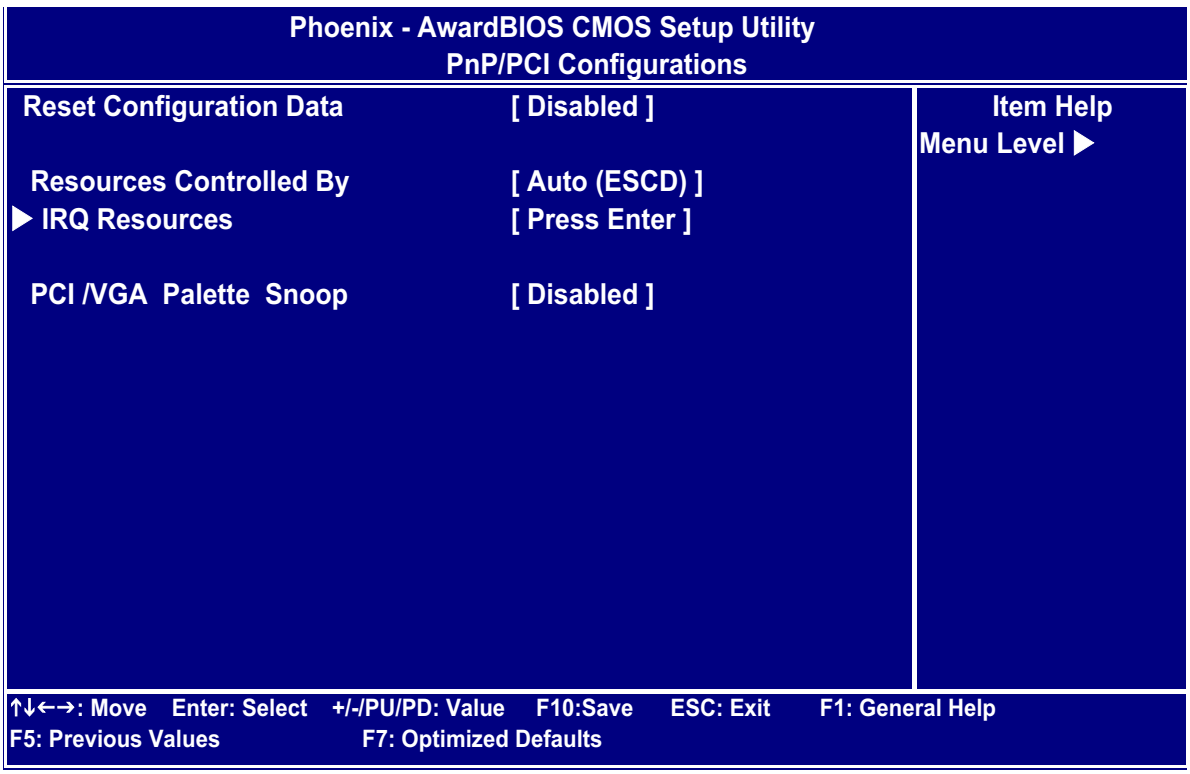
PM Wake Up Events


Phoenix - AwardBIOS CMOS Setup Utility
PM Wake Up Events
IRQ [3-7,9-15], NMI [Enabled]
IRQ 8 Break Suspend [Disabled]
Ring Wake Up Control [Enabled]
MACPME Wake Up Control [Enabled]
PCIPME Wake Up Control [Enabled]
USB Port Wake Up Control [Enabled]
PS2KB Wakeup from S3/S4/S5 [Hot Key]
PS2MS Wakeup from S3/S4/S5 [Click]
Power Up by Alarm [Disabled]
x Month Alarm NA
x Day of Month Alarm 0
x Time (hh:mm:ss) Alarm 00:00:00
** Reload Global Timer Events **
Primary IDE [Disabled]
Secondary IDE [Disabled]
FDD, COM,LPT Port [Disabled]
PCI PIRQ [A-D]# [Disabled]
Item Help
Menu Level ▶
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

Parameter	Description	Options
IRQ [3-7, 9-15], NMI	This option is used to enable or disable IRQ[3-7,9-15],NMI.	Disabled **Enabled**
IRQ 8 Break Suspend	This option is used to enable or disable IRQ8 break suspend.	**Disabled** Enabled
RING Wake Up Control	An input signal on the serial Ring Indicator (RI) line (in other words, an incoming call on the modem) awakens the system from a soft off state.	Disabled **Enabled**
MACPME Wake Up Control	This option is used to enable or disable the system to be weaken up by onboard LAN.	Disabled **Enabled**
PCIPME Wake Up Control	This option is used to enable or disable the system to be waken up by the PCI card.	Disabled **Enabled**
USB Port Wake Up Control	This option is used to enable or disable the system wake up by USB device.	**Enabled**
PS2KB Wakeup from S3/S4/S5	This option allows you to specify whether the system will be awakened from power saving modes when activity or input signal of the specified hardware peripheral or component is detected.	Hot Key
PS2MS Wakeup from S3/S4/S5	Choose the PS2MS wakeup mode form S3/S4/S5.	Disabled **Click** Move & Click

Parameter	Description	Options
Power Up by Alarm	When set to Enabled, the following three fields become available: Month Alarm, Day of Month Alarm, and Time Alarm Upon arrival of the alarm time, it will instruct the system to wake up.	**Disabled** Enabled
Primary IDE	When these items are enabled, the system will restart the power-saving timeout conunters when any activity is detected on any of the drives on the primary or secondary IDE channel.	**Disabled** Enabled
Secondary IDE	When these items are enabled, the system will restart the power-saving timeout conunters when any activity is detected on any of the drives on the primary or secondary IDE channel.	**Disabled** Enabled
FDD,COM,LPT Port	When this item is enabled, the system will restart the power-saving time-out counters when any activity is detected on the floppy disk drive, serial ports, or the parallel port.	**Disabled** Enabled
PCI PIRQ[A-D]#	When this item is enabled, any activity from one of the listed devices wakes up the system.	**Disabled** Enabled

PnP/PCI Configuration

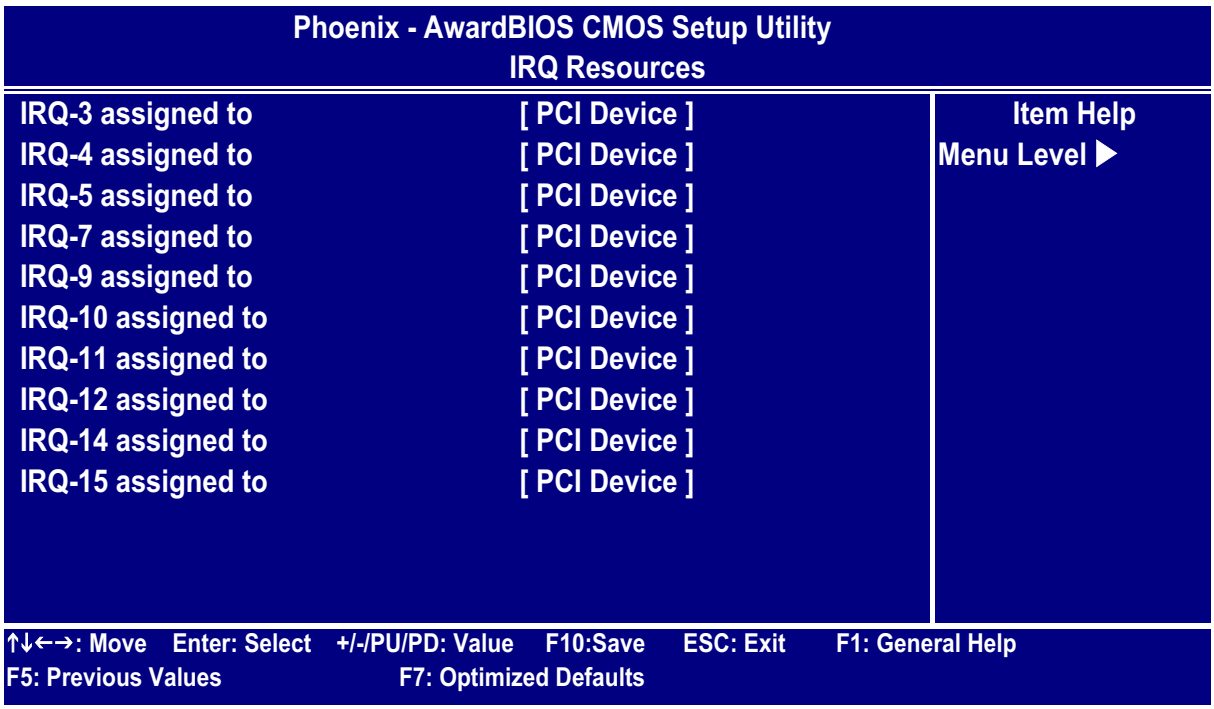

Phoenix - AwardBIOS CMOS Setup Utility
PnP/PCI Configurations
Reset Configuration Data [Disabled]
Resources Controlled By [Auto (ESCD)]
▶ IRQ Resources [Press Enter]
PCI /VGA Palette Snoop [Disabled]
Item Help
Menu Level ▶
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

The following table describes the parameters found in this menu. Settings in **boldface** are the default and suggested settings.

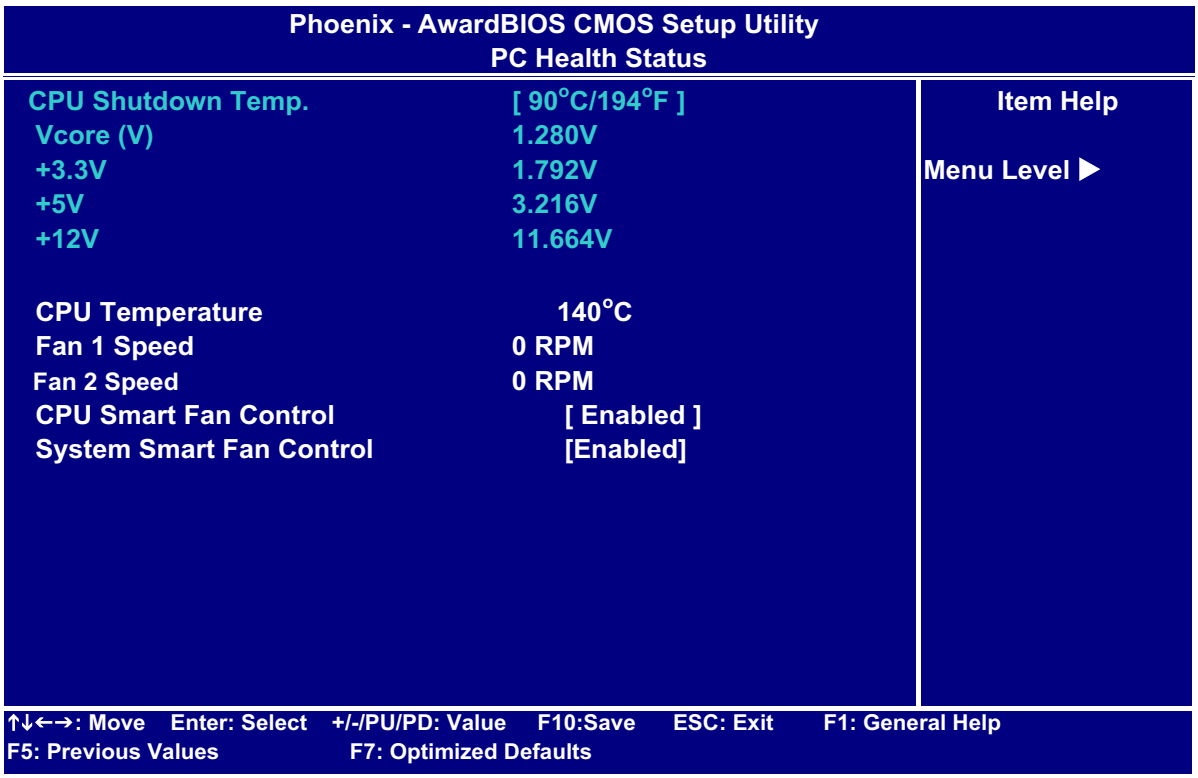
Parameter	Description	Options
Reset Configuration Data	Selecting “Enabled” to reset Extended System Configuration Data (ESCD) only if you installed a new add-on and the system reconfiguration has caused such a serious conflict that the operating system can not boot. Otherwise, you should leave it unchanged.	**Disabled** Enabled
Resources Controlled By	This BIOS can automatically configure all of the boot and Plug and Play compatible devices. You can also set it as Manual and go into each of the sub menu to choose specific resources.	**Auto (ESCD)** Manual
IRQ Resources	The items are adjustable only when “Resources Controlled By” is set to Manual. By pressing “Enter” to access the sub menu.	**Press Enter**
PCI/VGA Palette Snoop	Disabled - Data read or written by the CPU is only directed to the PCI VGA device’s palette registers. Enabled - Data read or written by the CPU is directed to both the PCI VGA device’s palette registers and the ISA VGA device’s palette registers, permitting the palette registers of both VGA devices to be identical.	**Disabled** Enabled *If any ISA bus adapter in the system requires VGA Palette snooping, the setting must be set to “Enabled”.

NOTE: It is strongly recommended that only experienced users should make any changes to the default settings.

IRQ Resources


Phoenix - AwardBIOS CMOS Setup Utility
IRQ Resources
IRQ-3 assigned to [PCI Device]
IRQ-4 assigned to [PCI Device]
IRQ-5 assigned to [PCI Device]
IRQ-7 assigned to [PCI Device]
IRQ-9 assigned to [PCI Device]
IRQ-10 assigned to [PCI Device]
IRQ-11 assigned to [PCI Device]
IRQ-12 assigned to [PCI Device]
IRQ-14 assigned to [PCI Device]
IRQ-15 assigned to [PCI Device]
Item Help
Menu Level ▶
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

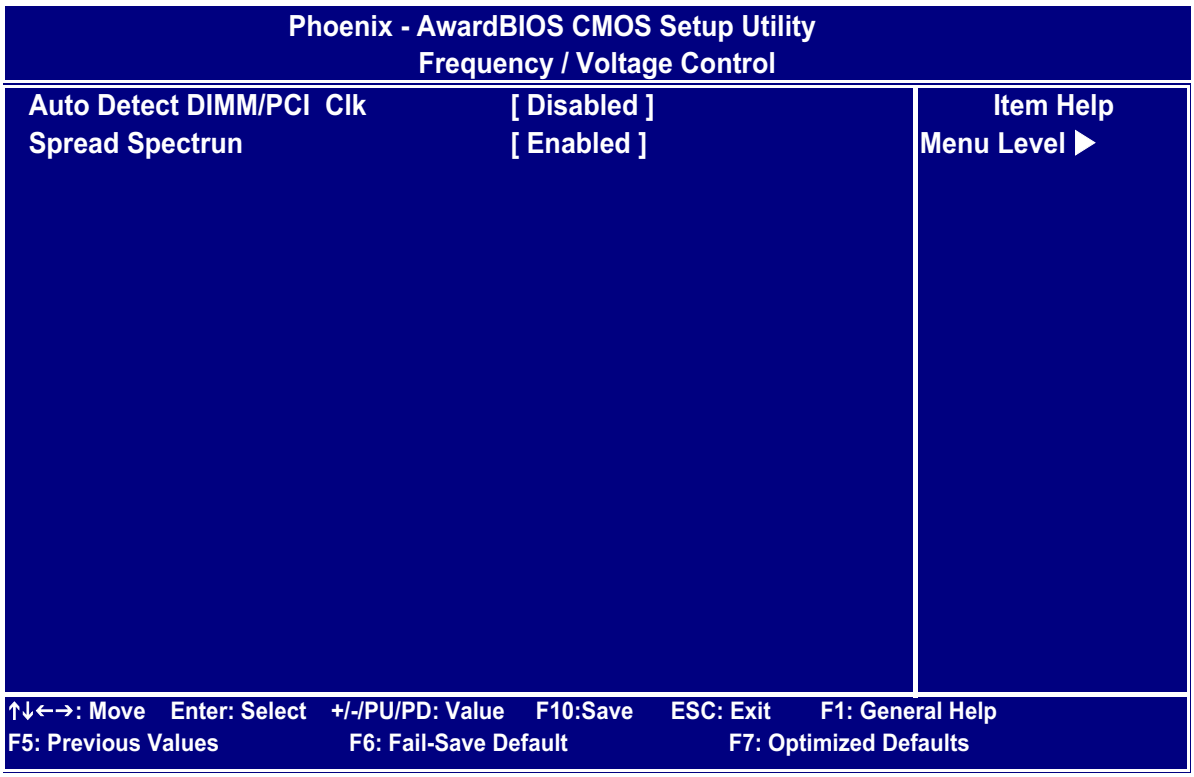
PC Health Status


Phoenix - AwardBIOS CMOS Setup Utility
PC Health Status
CPU Shutdown Temp. [90°C/194°F]
Vcore (V) 1.280V
+3.3V 1.792V
+5V 3.216V
+12V 11.664V
CPU Temperature 140°C
Fan 1 Speed 0 RPM
Fan 2 Speed 0 RPM
CPU Smart Fan Control [Enabled]
System Smart Fan Control [Enabled]
Item Help
Menu Level ▶
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

The following table describes the parameters found in this menu:

Parameter	Description	Options
CPU Shutdown Temp.	This option is for setting the shutdown temperature level for the processor. When the processor reaches the temperature you set, the ACPI-aware system will be shut down.	
CPU Temperature	This option is used to enable or disable the system wake up by USB device.	
Fan 1 Speed	This option is setting to Enable/Disable CPU Fan Control	Show current CPU Fan speed
Fan 2 Speed		Show Current System Fan Speed
CPU Smart Fan Control	This item allow user to Enable /Disable CPU Smart Fan function.	Disabled **Enabled**
System Smart Fan Control	This item allow user to Enable /Disable System Smart Fan function.	Disabled **Enabled**

Frequency/Voltage Control

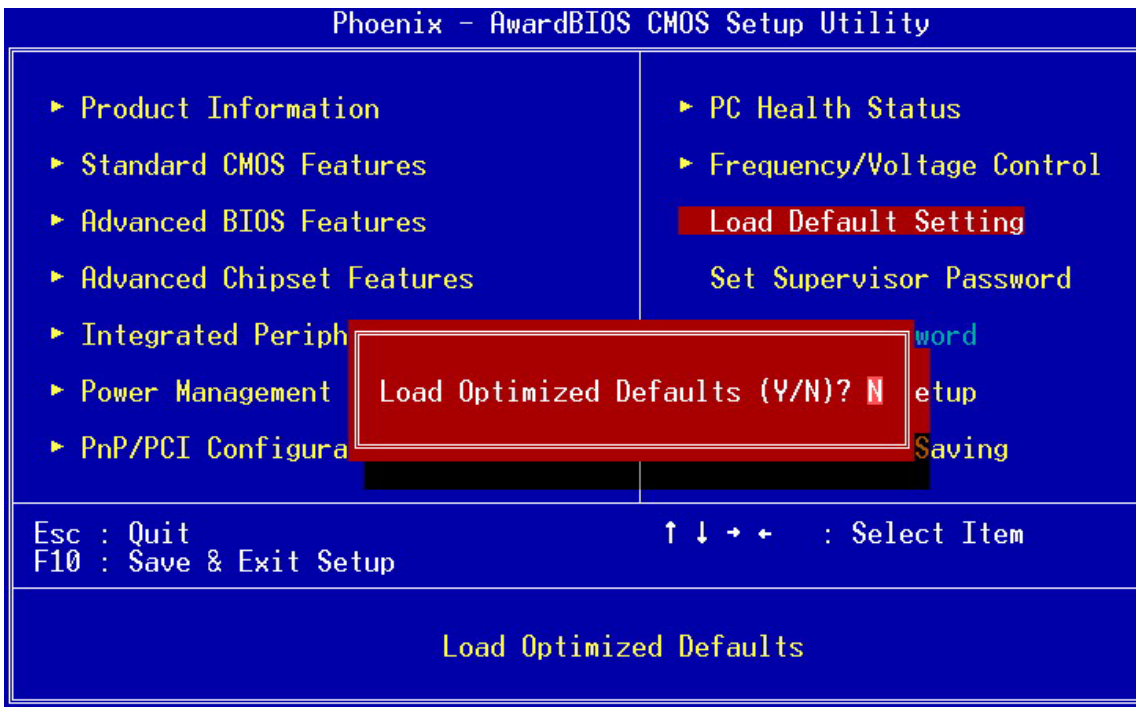

Phoenix - AwardBIOS CMOS Setup Utility
Frequency / Voltage Control
Auto Detect DIMM/PCI Clk
[Disabled]
Spread Spectrun
[Enabled]
Item Help
Menu Level ▶
↑↓←→: Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1: General Help
F5: Previous Values F6: Fail-Save Default F7: Optimized Defaults

The following table describes the parameters found in this menu. Settings in **boldface** are the default and suggested settings.

Parameter	Description	Options
Auto Detect DIMM/PCI Clk	This option allows you to enable/disable the feature of auto detecting the clock frequency of the installed PCI bus.	Enabled **Disabled**
Spread Spectrum	When the motherboard's clock generator pulses, the extreme values (spikes) of the pulses creates EMI (Electromagnetic Interference). The spread Spectrum function reduces the EMI generated by modulating the pulses so that the spikes of the pulses are reduced to flatter curves. If you do not have any EMI problem, leave the setting at Disabled for optimal system stability and performance. But if you are plagued by EMI, setting to Enabled for EMI reduction. Remember to disable Spread Spectrum if you are overlocking because even a slight jitter can introduce a temporary boost in clockspeed which may just cause your overlock ed processor to lock up.	**Enabled**

Load Default Settings

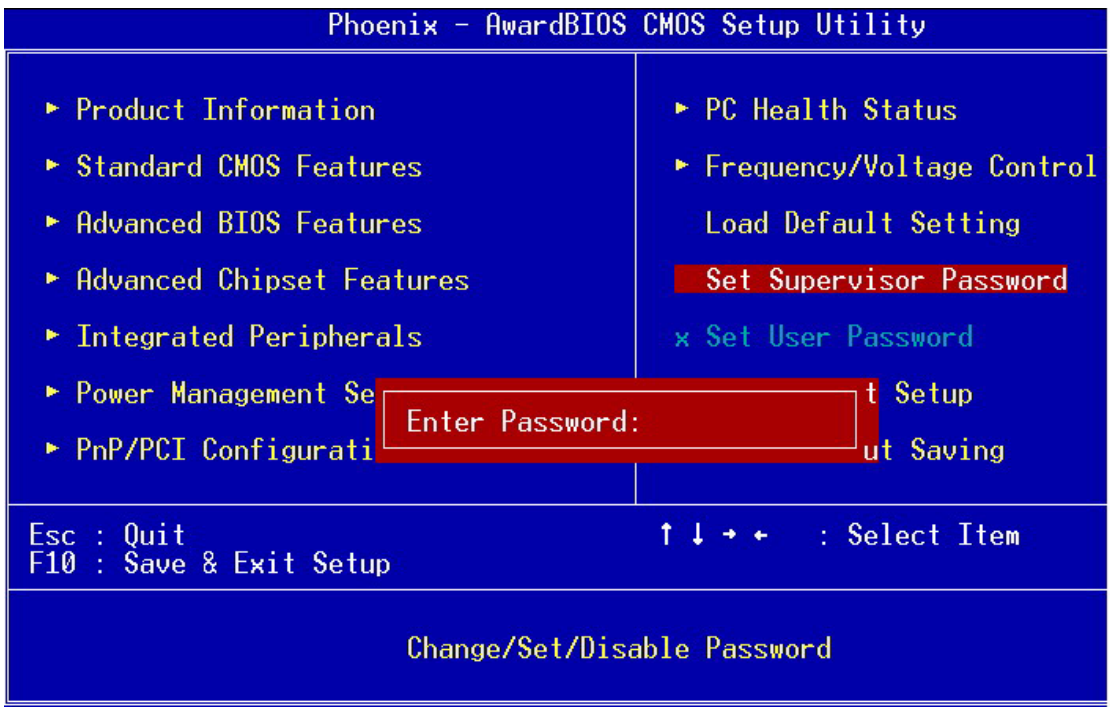
This option opens a dialog box that lets you install defaults for all appropriate items in the Setup Utility.



Press <Y> and then <Enter> to install the defaults. Press <N> and then <Enter> to not install the defaults. The defaults place demands on the system that may be greater than the performance level of the components, such as the CPU and the memory. You can cause fatal errors or instability if you install the optimized defaults when your hardware does not support them. If you only want to install setup defaults for a specific option, select and display that option.

Set Supervisor/User Password

When this function is selected, the following message appears at the center of the screen to assist you in creating a password.



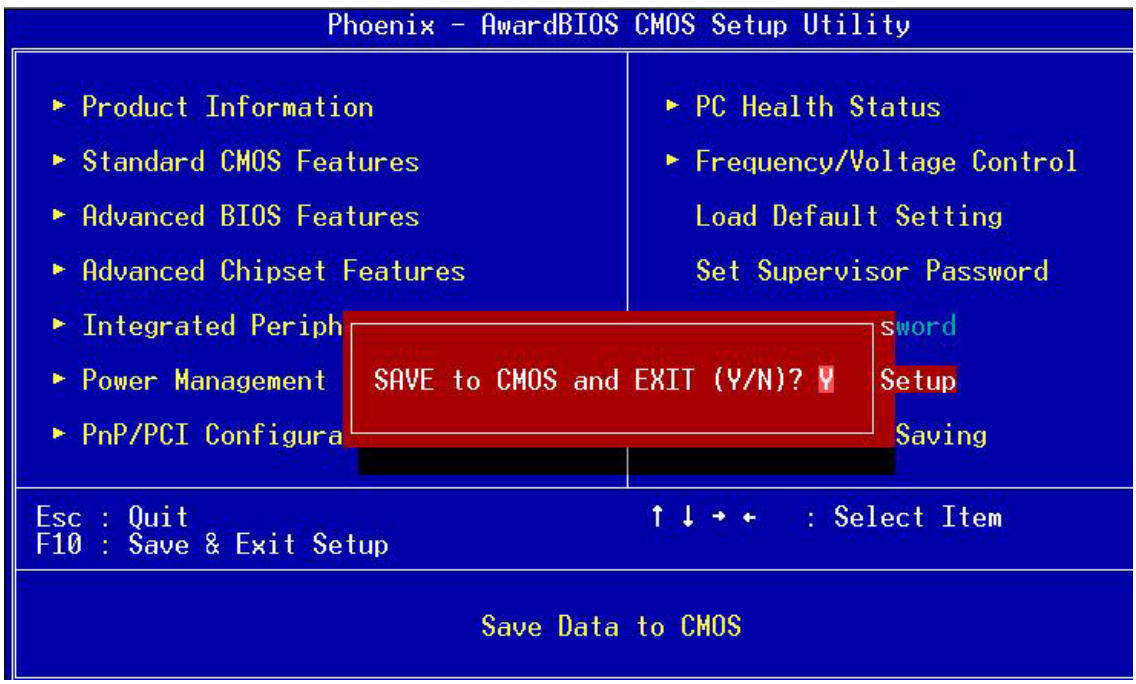
Type the password, up to eight characters, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection.

To disable password, just press <Enter> when you are prompted to enter password. A message will confirm the password being disabled. Once the password is disabled, the system will boot and you can enter BIOS Setup freely.

Supervisor Password has higher priority than User Password. You can use Supervisor Password when booting the system or entering BIOS Setup to modify all settings. Also you can use User Password when booting the system or entering BIOS Setup but can not modify any setting if Supervisor Password is enabled.

Save & Exit Setup

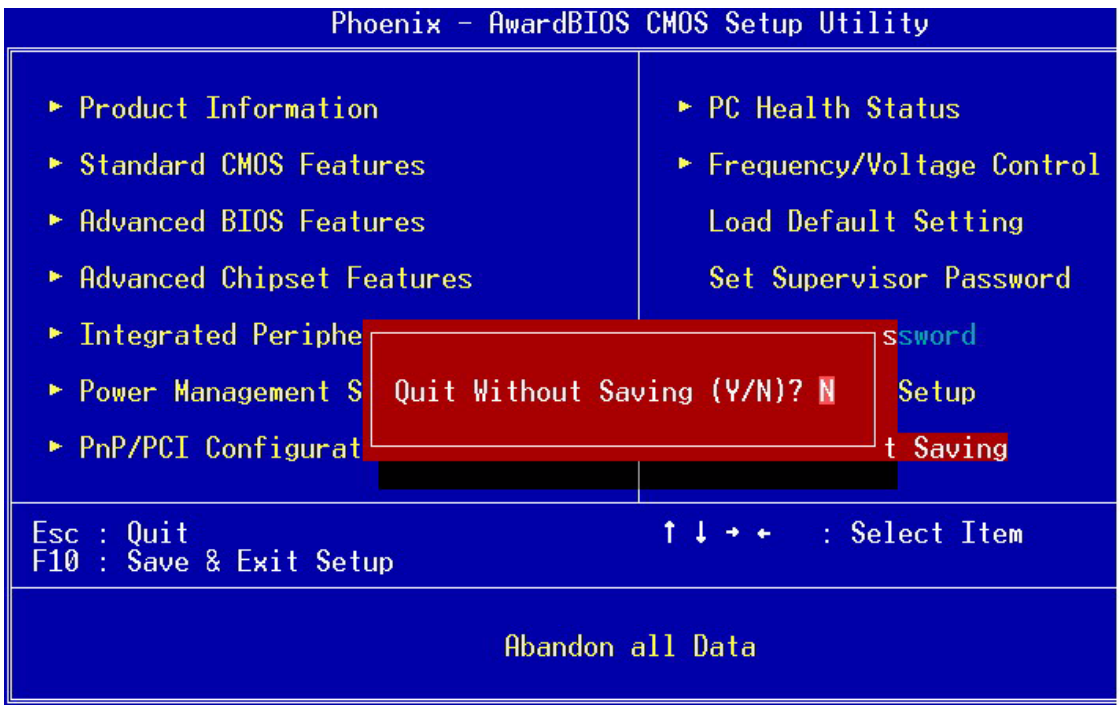
Highlight this item and press <Enter> to save the changes that you have made in the Setup Utility and exit the Setup Utility.



When the Save and Exit dialog box appears, press <Y> to save and exit, or press <N> to return to the main menu.

Exit Without Saving

Highlight this item and press <Enter> to discard any changes that you have made in the Setup Utility and exit the Setup Utility.



When the Exit Without Saving dialog box appears, press <Y> to discard changes and exit, or press <N> to return to the main menu.

NOTE: If you have made settings that you do not want to save, use the "Exit Without Saving" item and press <Y> to discard any changes you have made.

Machine Disassembly and Replacement

This chapter will guide you how to disassemble and reassemble Aspire SA60/AcerPower S260.

To disassemble the computer, you need the following tools:

- Wrist grounding strap and conductive mat for preventing electrostatic discharge.
- Wire cutter.
- Phillips screwdriver (may require different size).

NOTE: The screws for the different components vary in size. During the disassembly process, group the screws with the corresponding components to avoid mismatches when putting back the components.

General Information

Before You Begin

Before proceeding with the disassenbly procedure, make sure that you do the following:

1. Turn off the power to the system and all peripherals.
2. Unplug the AC adapter and all power and signal cables from the system.

Standard Disassembly Procedure

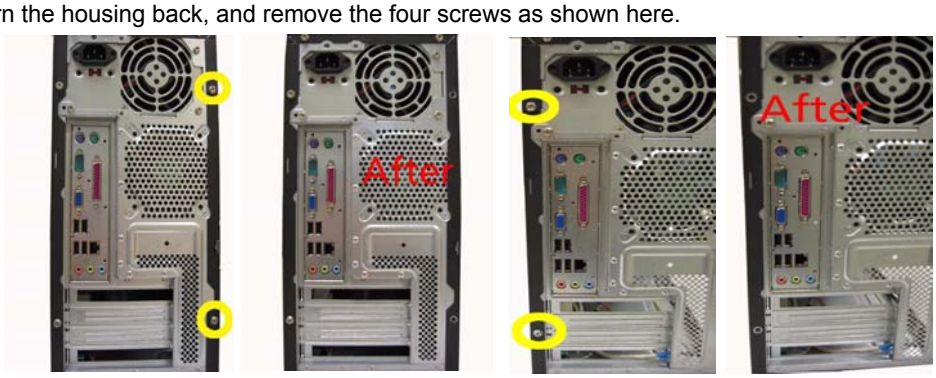
This section tells you how to disassemble the system when you need to perform system service. The difference between Aspire SA60/AcerPower S260 is the outlooking but the inner disassembly and reassembly mechanic are the same.

Before you proceed, make sure you have turned off the system and all peripherals connected to it.

Opening the System

1. Place the system unit on a flat, steady surface.

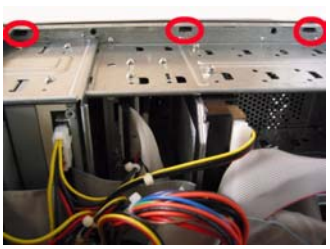
2. Turn the housing back, and remove the four screws as shown here.



3. Slide the side door out. Then remove them.

Removing the Front Panel

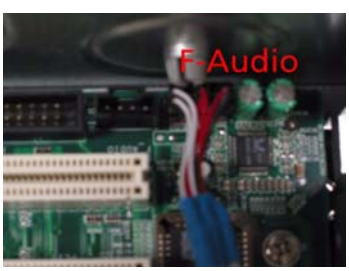
1. Press fastener as red arrowhead shown, then remove the front panel as shown.



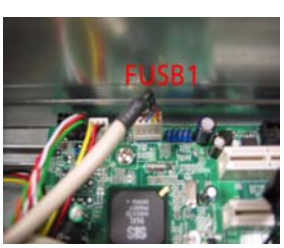
Removing the Cables from Mainboard

1. Disconnect the FDD IDE cable from mainboard.

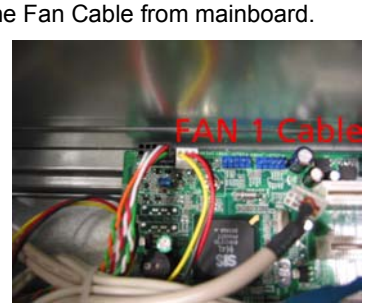
2. Disconnect the front side audio cable from mainboard.



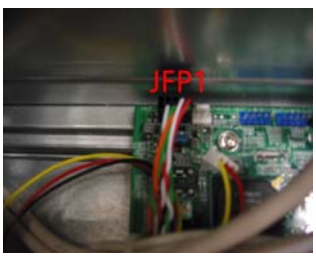
3. Disconnect the front side USB from the mainboard.

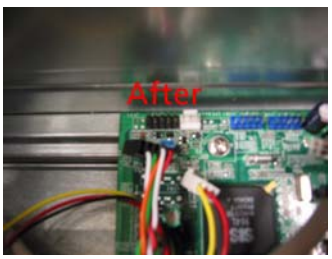


4. Disconnect the Fan Cable from mainboard.

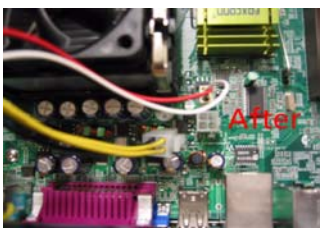


5. Disconnect the JFP cable from mainboard.



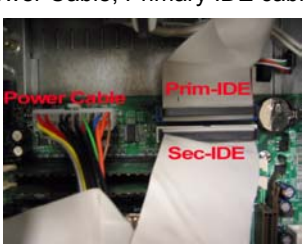


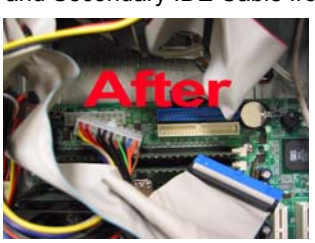
6. Disconnect the 4 pin power cable from mainboard.



7. Disconnect the CPU Fan cable from mainboard.

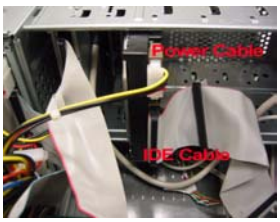
8. Disconnect the Power Cable, Primary IDE cable and Secondary IDE Cable from mainboard.



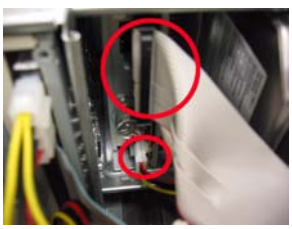


Disconnect the Cables from Device

1. Disconnect the Power cable and IDE cable from the HDD.



2. Disconnect the two cables from the rear of card reader.



3. Disconnect the IDE cable and power cable from the ODD.

4. Disconnect the IDE cable and power cable from another ODD.

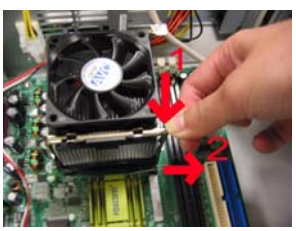
5. Disconnect the cables from the USB module.

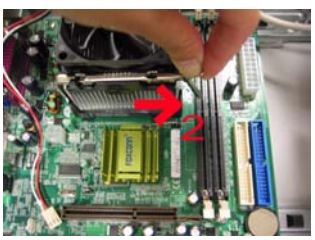
Removing the DIMM

1. Pop up both side to release the DIMM.
2. Pull out the DIMM out from the slot.

Removing the Heatsink

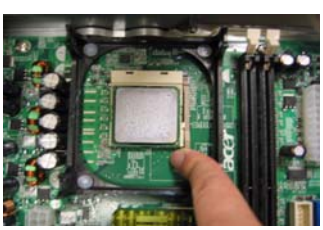
1. Unhook the latch located on both side.
2. Please disassemble this protions as the indications. Press down then push outward the latch.





Removing the CPU

1. Press down then pull up to 90 degrees to release the clip.
2. Take the CPU out from the socket.

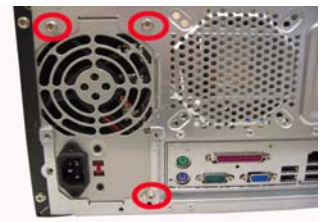


Removing the System Fan

1. Remove the four screws.
2. Detach the system fan out from the chassis.

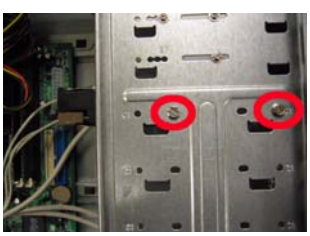
Removing the Power Supply

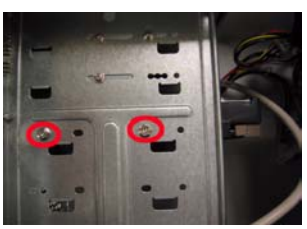
1. Remove the three screws.
2. Detach the Power Supply out from the chassis.



Removing the HDD

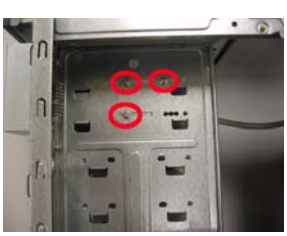
1. Remove the two screws located on both side of the cage.
2. Then detach the HDD out from the chassis.





Removing the FDD and Card Reader

1. Remove the three screws located on each side.
2. Pull out the FDD and Card Reader from the chassis.

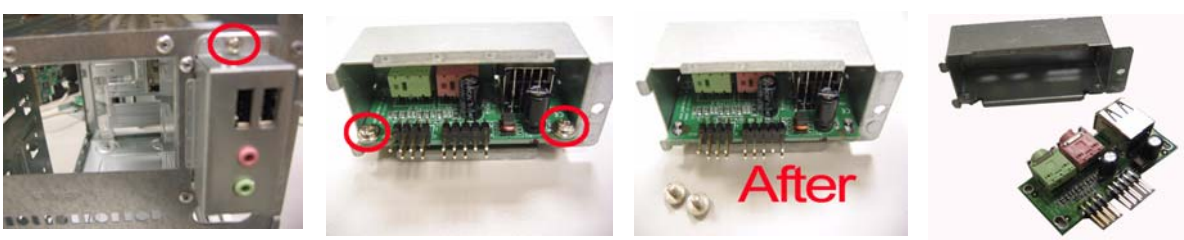


Removing the ODD

1. Remove the four screws located on each side.
2. Detach the ODD out from the chassis.

Removing the I/O Module

1. Remove the one screw.
2. Remove the two screws located on the daughter board.
3. Detach the daughter board from the I/O bracket.

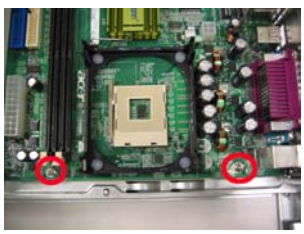


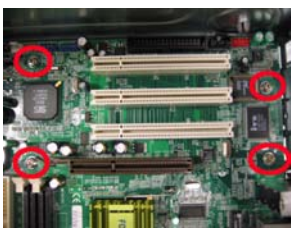
Removing the Card Reader

1. Disconnect the card reader cable from the board.

Removing the Mainboard

1. Remove the two screws those nearby the CPU.
2. Remove another four screws those nearby the PCI slot.





Removing the Mainboard

1. Gently to pull the mainboard out from the chassis.

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Troubleshooting

This chapter provides troubleshooting information for the Aspire SA60/AcerPower S260

- Power-On Self-Test (POST)
- POST Check Points
- POST Error Messages List
- Error Symptoms List

Power-On Self-Test (POST)

Before the computer can be used, all the components must be tested and initialized, and the operating system must be bootstrapped into memory. This process is know as the power-on Self test(POST), generally under the control of the BIOS.

The Power-On Self Test (POST) is a BIOS procedure that boots the system, initializes and diagnoses the system components, and controls the operation of the power-on password option. During POST, system reports test or initialization failure through Beep codes, display error messages on screen(if available), or LED. The system halts when fatal error occurs.

The main components on the main board that must be diagnosed and/or initialized by POST to ensure system functionality are as follows:

- Microprocessor with built-in numeric co-processor and cache memory subsystem
- Direct Memory Access (DMA) controller
- Interrupt system
- Three programmable timers
- ROM subsystem
- RAM subsystem
- RTC RAM subsystem and real time clock/calendar with battery backup
- Onboard serial interface controller
- Onboard parallel interface controller
- Embedded hard disk interface and one diskette drive interface
- Keyboard and auxiliary device controllers
- I/O ports
  - PS/2-compatible mouse port
  - PS/2-compatible keyboard port
- Serial ports
- Parallel ports
- USB port

POST Check Points

When POST executes a task, it uses a series of preset numbers called check point to be latched at port 80h, indicating the stages it is currently running. This latch can be read and shown on a debug board.

The following table describes the Acer common tasks carried out by POST. A unique check point number represents each task.

Checkpoint	*Description*
CFh	Test CMOS R/W functionality
C0h	Early chipset initialization: • Disable shadow RAM • Disable L2 Cache (socket 7 or below) • Program basic chipset registers
C1h	Detect memory • Auto-detection of DRAM size, type and ECC. • Auto-detection of L2 cache (socket 7 or below)
C3h	Expand compressed BIOS code to DRAM
C5h	Call chipset hook to copy BIOS back to E000 & F000 shadow RAM
0h1	Expand the Xgroup codes locating in physical address 1000:0
02h	Reserved
03h	Initial Superio_Early_Init switch
04h	Reserved
05h	1. Blank out screen 2. Clear CMOS error flag
06h	Reserved
07h	1. Clear 8042 interface 2. Initialize 8042 self-test
08h	1. Test special keyboard controller for Winbond 977 series Super I/O chips 2. Enable keyboard interface
09h	Reserved
0Ah	1. Disable PS/2 mouse interface (optional) 2. Auto detect ports for keyboard & mouse followed by a port & interface swap (optional) 3. Reset keyboard for Winbond 977 series Super I/O chips
0Bh	Reserved
0Ch	Reserved
0Dh	Reserved
0Eh	Test F000h segment shadow to see whether it is R/W-able or not. If test fails. keep beeping the speaker.
0Fh	Reserved
10h	Auto detect flash type to load appropriate flash R/W codes into the run time area in F000 for ESCD & DMI support.
11h	Reserved

Checkpoint	*Description*
12h	Use walking 1's algorithm to check out interface in CMOS circuitry. Also set real-time clock power status, and then check for override.
13h	Reserved
14h	Program chipset default values into chipset. Chipset default values are MODBINable by OEM customers.
15h	Reserved
16h	Initial onboard clock generator if Early_Init_Onboard_Generator is defined. See also POST 26h.
17h	Reserved
18h	Detect CPU information including brand, SMI type (Cyrix or Intel) and CPU level (586 or 686).
19h	Reserved
1Ah	Reserved
1Bh	Initial interrupts vector table. If no special specified, all H/W interrupts are directed to SPURIOUS_INT_HDLR & S/W interrupts to SPURIOUS_soft_HDLR.
1Ch	Reserved
1Dh	Initial EARLY_PM_INIT switch
1Eh	Reserved
1Fh	Load keyboard matrix (notebook platform)
20h	Reserved
21h	HPM Initialization (notebook platform)
22h	Reserved
23h	1. Check validity of RTC value: e.g. a value of 5Ah is an invalid value for RTC minute. 2. Load CMOS settings into BIOS stack. If Smos checksum fails, use default value instead.
24h	Prepare BIOS resource map for PCI & PnP use. If ESCD is valid, take into consideration of the ESCD's legacy information.
25h	Early PCI Initialization: • Enumerate PCI bus number • Assign memory & I/O resource • Search for a valid VGA device & VGA BIOS, and put it into C000:0
26h	1. If Early_Init_Onboard_Generator is not defined Onboard clock generator initialization. Disable respective clock resource to empty PCI & DIMM slots. 2. Init onboard PWM 3. Init onboard H/W monitor devices
27h	Initialize INT 09 buffer
28h	Reserved
29h	1. Program CPU internal MTRR (P6 & PII) for 0-640K memory address. 2. Initialize the APIC for Pentium class CPU 3. Program early chipset according to CMOS setup. Example: onboard IDE controller. 4. Measure CPU speed.

Checkpoint	*Description*
2Ah	Reserved
2Bh	Invoke Video BIOS
2Ch	Reserved
2Dh	1. Initialize double-byte language font (Optional) 2. Put information on screen display, including Award title, CPU type, CPU speed, full screen logo.
2Eh	Reserved
2Fh	Rederved
30h	Reserved
31h	Reserved
32h	Reserved
33h	Reset keyboard if Early_Reset_KB is defined e.g. Winbond 977 series Super I/O chips. See also POST 63h
34h	Reserved
35h	Test DMA Channel 0
36h	Reserved
37h	Test DMA Channel 1
38h	Reserved
39h	Test DMA page registers
3Ah	Reserved
3Bh	Reserved
3Ch	Test 8254
3Dh	Reserved
3Eh	Test 8259 interrupt mask bits for channel 1
3Fh	Reserved
40h	Test 8259 interrupt mask bits for channel 2
41h	Reserved
42h	Reserved
43h	Test 8259 functionality
44h	Reserved
45h	Reserved
46h	Reserved
47h	Initialize EISA slot
48h	Reserved
49h	1. Calculate total memory by testing the last double word of each 64K page. 2. Program write allocation for AMD K5 CPU.
4Ah	Reserved
4Bh	Reserved
4Ch	Reserved
4Dh	Reserved

Checkpoint	Description
4Eh	1. Program MTRR of M1 CPU 2. Initialize L2 cache for P6 class CPU & program CPU with proper cacheable range. 3. Initialize the APIC for P6 class CPU. 4. On MP platform, adjust the cacheable range to smaller one in case the cacheable ranges between each CPU are not identical.
4Fh	Reserved
50h	Initialize USB Keyboard & Mouse
51h	Reserved
52h	Test all memory (clear all extended memory to 0)
53h	Clear password according to H/W jumper (Optional)
54h	Reserved
55h	Display number of processors (multi-processor platform)
56h	Reserved
57h	1. Display PnP logo 2. Early ISA PnP initialization - Assign CSN to every ISA PnP device
58h	Reserved
59h	Initialize the combined Trend Anti-Virus code
5Ah	Reserved
5Bh	(Optional Feature) Show message for entering AWDFLASH.EXE from FDD (optional)
5Ch	Reserved
5Dh	1. Initialize Init_Onboard_Super_IO 2. Initialize Init_Onboard_AUDIO
5Eh	Reserved
5Fh	Reserved
60h	Okay to enter Setup utility; i.e. not until this POST stage can users enter the CMOS setup utility.
61h	Reserved
62h	Reserved
63h	Reset keyboard if Early_Reset_KB is not defined.
64h	Reserved
65h	Initialize PS/2 Mouse
66h	Reserved
67h	Prepare memory size information for function call: INT 15h ax=E820h
68h	Reserved
69h	Turn on L2 cache
6Ah	Reserved
6Bh	Program chipset registers according to items described in Setup & Auto-configuration table
6Ch	Reserved

Checkpoint	Description
6Dh	1. Assign resources to all ISA PnP devices. 2. Auto assign ports to onboard COM ports if the corresponding item in Setup is set to “Auto”.
6Eh	Reserved
6Fh	1. Initialize floppy controller 2. Set up floppy related fields in 40:hardware
70h	Reserved
71h	Reserved
72h	Reserved
73h	Reserved
74h	Reserved
75h	Detech &install all IDE device: HDD, LS120, ZIP, CDROM...
76h	(Optional feature) Enter AWDFLASH.EXE if: - AWDFLASH.EXE is found in floppy drive. - ALT+F2 is prrssed.
77h	Detect serial ports & parallel ports
78h	Reserved
79h	Reserved
7Ah	Detect & install co-processor
7Bh	Reserved
7Ch	Init HDD write protect
7Dh	Reserved
7Eh	Reserved
7Fh	Switch back to text mode if full screen logo is supported. - If errors occur, report errors & wait for keys - If no errors occur or F1 key is pressed to continue: Clear EPA or customization logo.
80h	Reserved
81h	Reserved
82h	1. Call chipset power management hook. 2. Recover the text fond used by EPA logo (not for full screen logo). 3. If password is set, ask for password.
83h	Save all data in stack back to CMOS
84h	Initialize ISA PnP boot devices
85h	1. USB final initialization 2. Switch screen back to text mode
86h	Reserved
87h	NET PC: Build SYSID structure
88h	Reserved
89h	1. Assign IRQs to PCI devices. 2. Set up ACPI table at top of the memory.
8Ah	Reserved

Checkpoint	*Description*
8Bh	1. Invoke all ISA adapter ROMs 2. Invoke all PCI ROMs (except VGA)
8Ch	Reserved
8Dh	1. Enable/Disable Parity Check according to CMOS setup. 2. APM Initialization
8Eh	Reserved
8Fh	Clear noise if IRQs
90h	Reserved
91h	Reserved
92h	Reserved
93h	Read HDD boot sector information for Trend Anti-Virus code
94h	1. Enable L2 cache 2. Program Daylight Saving 3. Program boot up speed 4. Chipset final initialization 5. Power management final initialization 6. Clear screen & dispaly summary table 7. Program K6 write allocation 8. Program P6 class write combining
95h	Update keyboard LED & typematic rate
96h	1. Build MP table 2. Build & update ESCD 3. Set CMOS century to 20h or 19h 4. Load CMOS time into DOS timer tick 5. Build MSIRQ routing table
FFh	Boot attempt (INT 19h)

POST Error Messages List

If you cannot run the diagnostics program tests but did receive a POST error message, use “POST Error Messages List” to diagnose system problems. If you did not receive any error message, look for a description of your error symptoms in “Error Sympton List”.

NOTE: When you have deemed it necessary to replace an FRU, and have done so, you must run a total system check to ensure that no other activity has been affected by the change. This system check can be done through the diagnostics program.

NOTE: Check all power supply voltages, switch, and jumper settings before you replace the main board. Also check the power supply voltages if you have a “system no-power” condition.

NOTE: To diagnose a problem, first find the BIOS error messages in the left column. If directed to a check procedure, replace the FRU indicated in the check procedure. If no check procedure is indicated, the first Action/FRU listed in right column is the most likely cause.

BIOS Messages	Action/FRU
I/O Parity Error	1. System board
CPU Clock Mismatch	1. Enter BIOS Setup and load the default settings. 2. Ensure BIOS setting for processor is set correctly.
Real Time Clock Error CMOS Battery Bad CMOS Checksum Error	1. Enter BIOS Setup and load the default settings. 2. RTC Battery. 3. System Board.
Equipment Configuration Error	1. Ensure the system configuration set in BIOS Setup is correct. 2. Enter BIOS Setup and load the default settings. 3. RTC battery. 4. System board.
System Management Memory Bad Memory Error at MMMM:SSSS:OOOOh	1. Insert the memory modules in the DIMM sockets properly, then reboot the system. 2. Memory module. 3. System board.
RAM Parity Error	1. Enter BIOS Setup to disable parity check. 2. Memory module 3. System board
PS/2 Keyboard Error or Keyboard Not Connected PS/2 Keyboard Interface Error PS/2 Keyboard Locked	1. Re-connect PS/2 keyboard and mouse. 2. Enter BIOS Setup and load the default settings. 3. PS/2 keyboard 4. PS/2 mouse 5. System board
Onboard xxx... Conflict(s)	1. Enter BIOS Setup and load the default settings. 2. Remove all adapter cards that are NOT factory-installed, then reboot the system.
Floppy Disk Controller Error Floppy Drive A Error Floppy Drive B Error	1. Diskette drive cable/connection. 2. Diskette drive. 3. System board
On Board Parallel Port Conflict(s) On Board Serial Port 1 Conflict(s) On Board Serial Port 2 Conflict(s)	1. Enter BIOS Setup and load the default settings. 2. Remove all adapter cards that are NOT factory-installed, then reboot the system.

BIOS Messages	Action/FRU
Floppy Drive(s) Write Protected Hard Disk Drive(s) Write Protected	1. Ensure that the diskette drive is not set to [Write Protected] in the Security Options in BIOS Setup. 2. Load default settings in Setup.
IDE Drive 0 Error IDE Drive 1 Error IDE Drive 2 Error IDE Drive 3 Error	1. Enter BIOS Setup and load the default settings. 2. Check IDE drive jumper. 3. IDE hard disk drive power. 4. IDE hard disk drive cable/connection. 5. IDE hard disk drive.
IRQ Setting Error Expansion ROM Allocation Fail I/O Resource Conflict(s) Memory Resource Conflict(s)	1. Load default settings in Setup. 2. Enter BIOS Setup and set the **Reset Resource Assignments** of the **PnP/PCI Options** to Yes, then reboot the system. 3. Remove all adapter cards that are NOT factory-installed, then reboot the system
PCI Device Error	1. Load default settings in Setup. 2. Enter BIOS Setup and set the **Reset Resource Assignments** of the **PnP/PCI Options** to Yes, then reboot the system. 3. Remove all adapter cards that are NOT factory-installed, then reboot the system.
PS/2 Pointing Device Interface Error PS/2 Pointing Device Error	1. Re-connect PS/2 keyboard and mouse. 2. Enter BIOS Setup and load the default settings. 3. PS/2 mouse 4. PS/2 keyboard 5. System board
DMI Table Was Destroyed	1. Flash BIOS
Press “DEL” key to enter Setup or F1 key to continue	1. Press DEL to enter Setup and reconfigure the system.
Press ESC to turn off NMI, or any key to reboot	1. Press ESC to reject NMI error or press any other key to reboot the system.
Insert system diskette and press ENTER key to reboot	1. Insert a bootable disk into the floppy disk drive or remove this disk if a hard disk is installed.

Error Symptoms List

NOTE: To diagnose a problem, first find the error symptom in the left column. If directed to a check procedure, replace the FRU indicated in the check procedure. If no check procedure is indicated, the first Action/ FRU listed in right column is the most likely cause

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Error Symptom	Action/FRU
Processor / Processor Fan	
NOTE: Normally, the processor fan should be operative, and the processor clock setting should be exactly set to match its speed requirement before diagnosing any processor problems.	
Processor fan does not run but power supply fan runs.	1. Ensure the system is not in power saving mode. See “Power Management” in chapter 2. 2. With the system power on, measure the voltage of processor fan connector. Its reading should be +12Vdc. 3. System board.
Processor test failed.	1. Processor 2. System board
System Board and Memory	
NOTE: Ensure the memory modules are installed properly and the contact leads are clean before diagnosing any system problems.	
Memory test failed.	1. See "Memory" 2. System board
Incorrect memory size shown or repeated during POST.	1. Insert the memory modules in the DIMM sockets properly, then reboot the system. 2. Memory module. 3. System board.
System works but fails to enter power saving mode when the `Power Management Mode` is set to `Enabled`, and power saving timer set in BIOS has elapsed.	1. Enter BIOS Setup and load default settings. In Windows 98, check settings in Power Management Property of Control Panel. 2. Reload software from Recovery CD.
System hangs before system boot.	1. See "Index of Symptoms" 2. See "Undetermined Problems"
System hangs after system boot.	1. Execute a system test and set it to stop at “Halt on Error” to see the potential cause of the problem. 2. See “Undetermined Problems”.
Blinking cursor only; system does not work.	1. Diskette/IDE drive connection/cables 2. Diskette/IDE disk drives 3. See “Undetermined Problems”. 4. System board
Diskette Drive	
NOTE: Ensure the diskette drive is configured correctly in BIOS Setup and its read/write head is clean before diagnosing any diskette drive problems.	
Media and drive are mismatched.	1. Ensure the diskette drive is configured correctly in the Disk Drives of BIOS Setup. 2. Ensure the diskette drive is correctly formatted. 3. Diskette drive connection/cable 4. Diskette drive 5. System board

Error Symptom	Action/FRU
Diskette drive does not work.	1. Ensure the diskette drive is not set to `None` in the Disk Drives of BIOS Setup. 2. Diskette drive power 3. Diskette drive connection/cable 4. Diskette drive 5. System board
Diskette drive read/write error.	1. Diskette. 2. Ensure the diskette drive is not set to `Write protect` in the Security Options of BIOS Setup. 3. Diskette drive cable. 4. Diskette drive. 5. System board.
Diskette drive LED comes on for more than 2 minutes when reading data.	1. Diskette 2. Diskette drive connection/cable 3. Diskette drive 4. System board
Diskette drive LED fails to light, and the drive is unable to access for more than 2 minutes.	1. Diskette 2. Diskette drive power 3. Diskette drive connection/cable 4. Diskette drive 5. System board
Diskette drive test failed.	1. Diskette 2. Diskette drive 3. Diskette drive cable 4. System board
Hard Disk Drive	
NOTE: Ensure hard disk drive is configured correctly in BIOS Setup, cable/jumper are set correctly before diagnosing any hard disk drive problems.	
Hard disk drive test failed.	1. Enter BIOS Setup and Load default settings. 2. Hard disk drive cable. 3. Hard disk drive. 4. System board.
Hard disk drive cannot format completely.	1. Enter BIOS Setup and Load default settings. 2. Hard disk drive cable. 3. Hard disk drive. 4. System board.
Hard disk drive has write error.	1. Enter BIOS Setup and Load default settings. 2. Hard disk drive.
Hard disk drive LED fails to light, but system operates normally.	1. With the system power on, measure the voltage of hard disk LED connector. 2. Hard drive LED cable.
CD/DVD-ROM Drive	
NOTE: Ensure CD/DVD-ROM drive is configured correctly in BIOS Setup, cable/jumper are set correctly and its laser beam is clean before diagnosing any CD/DVD-ROM drive problems.	
CD/DVD-ROM drive LED doesn't come on but works normally.	1. CD/DVD-ROM drive

Error Symptom	Action/FRU
CD/DVD-ROM drive LED flashes for more than 30 seconds before LED shutting off. Software asks to reinstall disc. Software displays a reading CD/DVD error.	1. CD/DVD-ROM may have dirt or foreign material on it. Check with a known good disc. 2. CD/DVD-ROM is not inserted properly. 3. CD/DVD-ROM is damaged.
CD/DVD-ROM drive cannot load or eject when the system is turned on and its eject button is pressed and held.	1. Disconnect all cables from CD/DVD-ROM drive except power cable, then press eject button to try to unload the disk. 2. CD/DVD-ROM drive power. 3. CD/DVD-ROM drive
CD/DVD-ROM drive does not read and there are no messages are displayed.	1. CD may have dirt or foreign material on it. Check with a known good disc. 2. Ensure the CD/DVD-ROM driver is installed properly. 3. CD/DVD-ROM drive.
CD/DVD-ROM drive can play audio CD but no sound output.	1. Ensure the headphone jack of the CD/DVD-ROM has an output. 2. Turn up the sound volume. 3. Speaker power/connection/cable. 4. CD/DVD-ROM drive.
Real-Time Clock	
Real-time clock is inaccurate.	1. Ensure the information in the `Date and Time` of BIOS Setup is set correctly. 2. RTC battery. 3. System board
Audio	
Audio software program invokes but no sound comes from speakers.	1. Speaker power/connection/cable.
Modem	
Modem ring cannot wake up system from suspend mode.	1. Ensure the `Modem Ring Indicator` in BIOS Setup or `Power Management` is set to `Enabled`. 2. If PCI modem card is used, reinsert the modem card to PCI slot firmly or replace the modem card. 3. If ISA modem card is used, ensure the modem ring-in cable from the modem card to system board is connected properly. 4. In Win 98, ensure the telephone application is configured correctly for your modem and set to receive messages and/or fax.
Data/fax modem software program invokes but cannot receive/send data/ fax	1. Ensure the modem card is installed properly.
Fax/voice modem software program invokes but has no sound output. (Data files are received normally; voice from modem cannot be produced, but system sound feature works normally.)	1. Ensure the modem voice-in cable from modem adapter card to system board
Video and Monitor	
Video memory test failed. Video adapter failed.	1. Remove all non-factory-installed cards. 2. Load default settings (if screen is readable). 3. System board

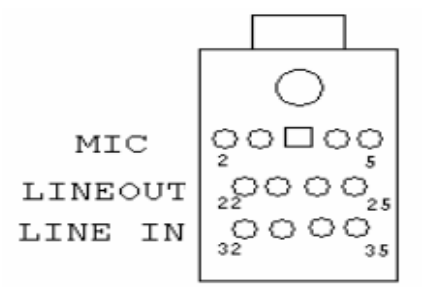
Error Symptom	Action/FRU
Display problem: - Incorrect colors No high intensity Missing, broken, or incorrect characters Blank monitor(dark) Blank monitor(bright) Distorted image Unreadable monitor Other monitor problems	1. Monitor signal connection/cable. 2. Monitor 3. Video adapter card 4. System board
Display changing colors.	1. Monitor signal connection/cable 2. Monitor 3. System board
Display problem not listed above (including blank or illegible monitor).	1. “Monitor". 2. Load default settings (if screen is readable). 3. System board

Error Symptom	Action/FRU
Parallel/Serial Ports	
Execute “Load BIOS Default Settings” in BIOS Setup to confirm ports presence before diagnosing any parallel/serial ports problems.	
Serial or parallel port loop-back test failed.	1. Make sure that the LPT# or COM# you test is the same as the setting in BIOS Setup. 2. Loop-back. 3. System board.
Printing failed.	1. Ensure the printer driver is properly installed. Refer to the printer service manual. 2. Printer. 3. Printer cable. 4. System board.
Printer problems.	1. Refer to the service manual for the printer.
Keyboard	
Some or all keys on keyboard do not work.	1. Keyboard
Power Supply	
Pressing power switch does not turn off system. (Only unplugging the power cord from electrical outlet can turn off the system.)	1. Ensure the `Power Switch < 4 sec.` in BIOS Setup of `Power Management` is not set to `Suspend`. 2. Power switch cable assembly
Pressing power switch does not turn on the system.	1. Ensure the power override switch (situated at the back of the machine, just above the connector for the power cable) is not set to OFF. 2. Power switch cable assembly.
Executing software shutdown from Windows98 Start menu does not turn off the system. (Only pressing power switch can turn off the system).	1. Load default settings. 2. Reload software from Recovery CD.
No system power, or power supply fan is not running.	1. Power Supply 2. System Board
Other Problems	
Any other problems.	1. Undetermined Problems

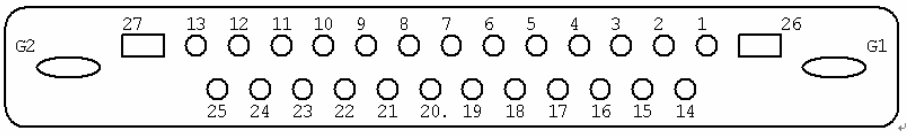
Jumper and Connector Information

Rear Panel I/O

AUDIO JACK

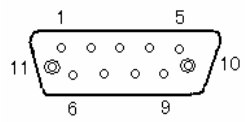
Item		Pin Number	Pin Definition
	MIC	2	MIC1 AND AVREF
		3	NC
		4	JD0
		5	MIC2
	LINE OUT	22	FRONT_OUT_L
		23	NC
		24	JD1
		25	FRONT_OUT_R
	LINE IN	32	LINE_IN_L
		33	NC
		34	JD2
		35	LINE_IN_R

Print Port

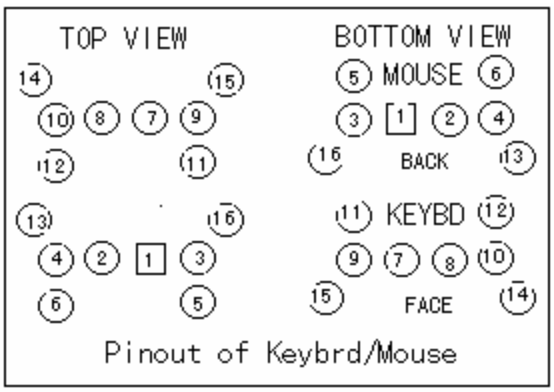


Pin Number	Pin Definition	Pin Number	Pin Definition
1	PSTROBJ	15	PERRORJ
2	PD0	16	PPRINITJ
3	PD1	17	PSLCTINJ
4	PD2	18	GND
5	PD3	19	GND
6	PD4	20	GND
7	PD5	21	GND
8	PD6	22	GND
9	PD7	23	GND
10	PACKJ	24	GND
11	PBUSY	25	GND
12	PPE	26,27	GND
13	PSLCT	G1	GND
14	PAUTOFDJ	G2	GND

Serial Port

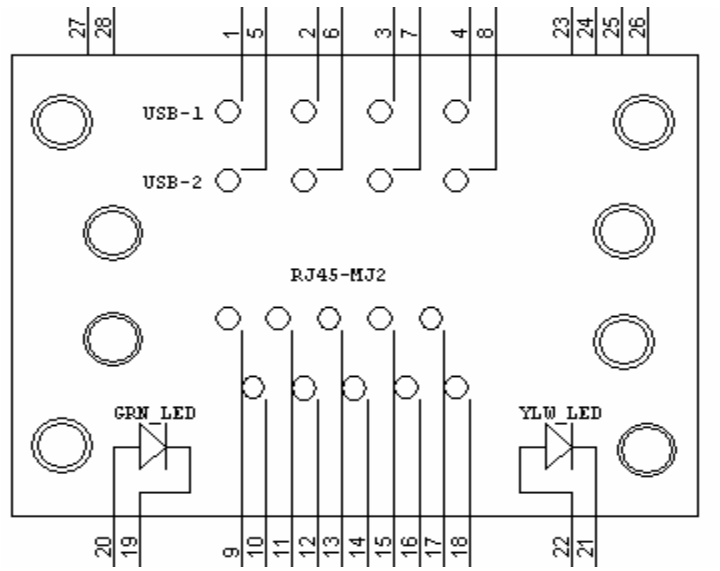
Illustration	Pin Number	Pin Definition	Pin Number	Pin Definition
	1	NDCDA	7	NRTSA
	2	NSINA	8	NCTSA
	3	NSOUTA	9	NRIA
	4	NDTRA	10	GND
	5	GND	11	GND
	6	NDSRA		

PS2-KBMS



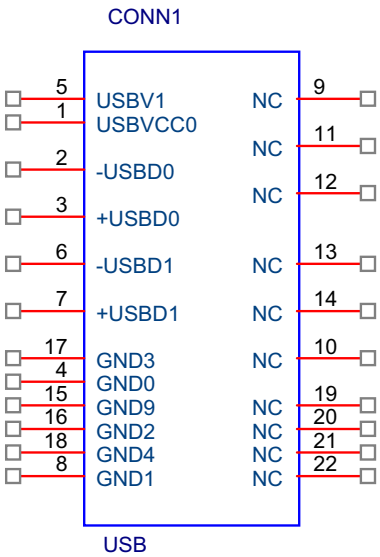
Pin Number	Pin Definition	Pin Number	Pin Definition
1	KBDATA	10	POWER
2	NC	11	MSCLK
3	GND	12	NC
4	POWER	13	GND
5	KBCLK	14	GND
6	NC	15	GND
7	MSDATA	16	GND
8	NC	17	GND
9	GND		

Dual USB & RJ45 CONN



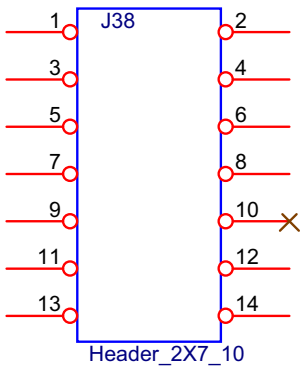
Pin Number	Pin Definition	Pin Number	Pin Definition
1	5V_DUAL_F	15	MDIA2J
2	USBP2N_R	16	MDIA3
3	USBP2P_R	17	MDIA3J
4	GND	18	GND
5	5V_DUAL_F	19	LINK100J
6	USBP3N_R	20	3D3V_SB
7	USBP3P_R	21	ACTLED
8	GND	22	3D3V_SB
9	VCT	23	GND
10	MDIA0	24	GND
11	MDIA0J	25	GND
12	MDIA1	26	GND
13	MDIA1J	27,28	GND
14	MDIA2	29,30	GND

Dual USB



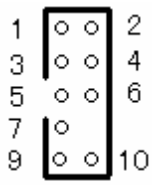
Pin Number	Pin Definition	Pin Number	Pin Definition
1	5V_DUAL_F	7	USBP0P_R
2	USBP1N_R	8	GND
3	USBP1P_R	9	GND
4	GND	10	GND
5	5V_DUAL_F	11	GND
6	USBP0N_R	12	GND

Front Panel I/O



Pin Number	Pin Definition	Pin Number	Pin Definition
1	+5V	8	GND
2	LEDP	9	+5V
3	HDLED	10	NC
4	PMSLED	11	GND(RSV)
5	GND	12	+5V_STBY(RSV)
6	SWITCH_ON	13	GND(RSV)
7	FP_RESET	14	+5V_STBY(RSV)

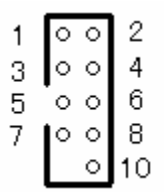
Front Audio Header



Pin Number	Pin Definition	Pin Number	Pin Definition
1	FRONT_MIC	6	FRONT_OUT_R
2	GNDA	7	NC
3	VREFOUT	8	KEY
4	VCC5A	9	LINE_OUT_L
5	LINE_OUT_R	10	FRONT_OUT_L

NOTE: If there isn't Audio Front Panel Cable, Pin5 and 6 must be connected with jumper; Pin9 and Pin10 must be connected with jumper.

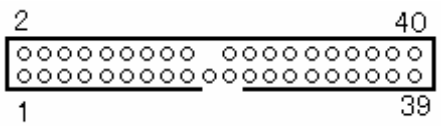
Front USB Header



Pin Number	Pin Definition	Pin Number	Pin Definition
1	USBPWR_FNTPNL	6	USB1+
2	USBPWR_FNTPNL	7	GND
3	USB0-	8	GND
4	USB1-	9	KEY
5	USB0+	10	NC

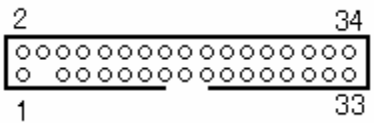
Conn & Jump Setting

IDE Connector



Pin Number	Pin Definition	Pin Number	Pin Definition
1	-HDRST	21	IDE REQ
2	GND	22	GND
3	Device data 7	23	I/O WRITE
4	Device data 8	24	GND
5	Device data 6	25	I/O READ
6	Device data 9	26	GND
7	Device data 5	27	I/O RDY
8	Device data 10	28	Pull down for always master
9	Device data 4	29	IDE ACK
10	Device data 11	30	GND
11	Device data 3	31	IRQ14
12	Device data 12	32	NC
13	Device data 2	33	Device address 1
14	Device data 13	34	NC
15	Device data 1	35	Device address 0
16	Device data 14	36	Device address 2
17	Device data 0	37	Device chip select S1
18	Device data 15	38	Device chip select S3
19	GND	39	HDDLED
20	NC	40	GND

Floppy Connector



Pin Number	Pin Definition	Pin Number	Pin Definition
1	GND	18	DIP#
2	DRVDEN0	19	GND
3	NC	20	STEP#
4	NC	21	GND
5	GND	22	WD#
6	NC	23	GND
7	GND	24	WE#
8	INDEX#	25	GND
9	GND	26	TRAK0#
10	MOA#	27	GND
11	GND	28	WP#
12	DSB#	29	GND
13	GND	30	RDATA#
14	DSA#	31	GND
15	GND	32	HEAD#
16	MOB#	33	GND
17	GND	34	DSKCHG

CD-IN

Illustration	Pin Number	Pin Definition
	1	CD-L
	2	CD-GND
	3	CD-GND
	4	CD-R

SYS FAN Connector

Illustration	Pin Number	Pin Definition
	1	GND
	2	POWER
	3	FAN_TAC2

CPU FAN Connector

Illustration	Pin Number	Pin Definition
	1	GROUND
	2	POWER
	3	FAN_TAC1

Clear CMOS

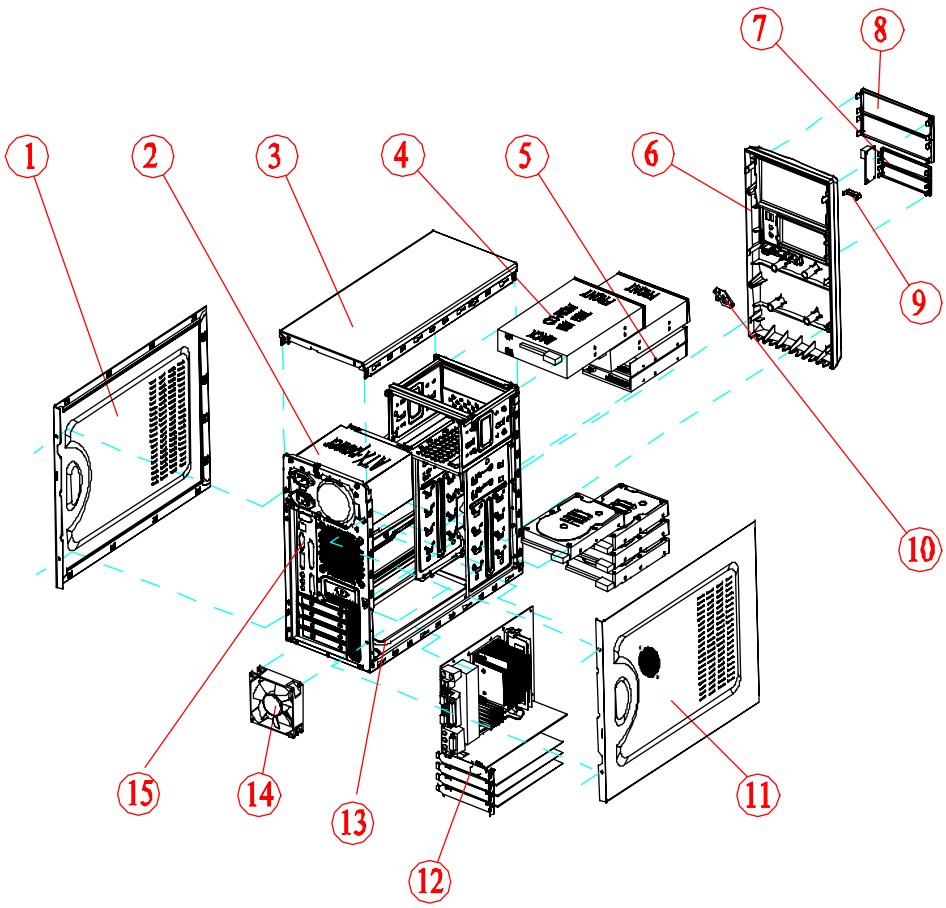
Illustration	CLEAR CMOS	CMOS
	1pin & 2pin	Clear
	2pin & 3pin	Normal

FRU (Field Replaceable Unit) List

This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of **Aspire SA60 / AcerPower S260**. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

NOTE: Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel (http://aicsl.acer.com.tw/spl/, if you do not own a specific account, you can still access the system with guest; guest). For whatever reasons a part number change is made, it will not be noted in the printed Service Guide. For ACER-AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

Exploded Diagram



ITEM	Description	P/N
1	Right Side Cover	2JA21-019
2	Power-supply	
3	Top Cover (Painted)	2JA21-018
4	CD-ROM	
5	FDD	
6	FRONT BEZEL	
7	3.25 COVER	2Q396-001
8	5.25 COVER	2L273-113
9	Power-Button	
10	Led-Holder	
11	Left Side Cover	2JA21-056
12	Mother Board	
13	CHASSIS SUB ASSY	
14	SYSTEM FAN	
15	I/O SHIELD	

PART NAME	DESCRIPTION	P/N
BOARD		
USB/ AUDIO DAUGHTER BOARD	USB BOARD	55.S26VF.001
READER		
9-IN-1 CARD READER MODULE 3.5 IN. KYE	9-IN-1 CARD READER MODULE 3.5 IN. KYE	PZ.00908.001
CABLE		
IDE HDD CABLE ATA66 40PIN	HDD DATA CABLE	50.P06VF.001
LED CABLE ASSY (POWER SWITCH CABLE, POWER LED CABLE, HDD LED CABLE)	LED CABLE ASSY	50.P04VF.003
AUDIO CABLE 8PIN 2CON	AUDIO CABLE	50.P04VF.001
FRONT INTERNAL USB CABLE	USB CABLE	50.P04VF.002
IDE CD-ROM CABLE ATA66 40PIN	CDROM DATA CABLE	50.P06VF.002
FDD CABLE	FDD CABLE	50.S30VF.001
COM2 CABLE	COM2 CABLE	50.V13VF.001
CASE/COVER/BRACKET ASSEMBLY		
FRONT BEZEL W/ POWER BUTTON, 5.25" 3.5" EMPTY COVER LED CABLE (S43 BEZEL)	S43 BEZEL SUB ASSY	60.S26VF.001 (Aspire SA60)
FRONT BEZEL W/ POWER BUTTON, 5.25" 3.5" EMPTY COVER (S42 BEZEL)	S42 BEZEL SUB ASSY (1 FDD COVER, 1 CD-COVER)	60.S17VF.001 (Aspire SA60)
FRONT BEZEL W/ POWER BUTTON, 5.25" 3.5" EMPTY COVER, LED CABLE (S42 BEZEL)	S42 BEZEL SUB ASSY (2 FDD COVER, 2 CD-COVER)	60.S30VF.001 (Aspire SA60)
POWER BUTTON	POWER-BUTTON (PAINTED)	42.S17VF.001 (Aspire SA60)
FRONT BEZEL W/ POWER BUTTON, 5.25" 3.5" EMPTY COVER USB DOOR	S1 BEZEL ASSY	60.P04VF.001 (AcerPower S260)
POWER BUTTON (SILVER)	POWER-BUTTON (PAINTED)	42.P05VF.001 (AcerPower S260)
FRONT BEZEL W/ POWER BUTTON, 5.25" 3.5" EMPTY COVER (S44 BEZEL)	S44 bezel assy	60.P23VF.001 (AcerPower S260)
SWITCH HOLDER	SWITCH HOLDER	42.P23VF.001 (AcerPower S260)
POWER BUTTON	POWER BUTTON (ELECTRO PLANT)	42.P23VF.002 (AcerPower S260)
SIDE DOOR	LEFT SIDE COVER (PAINTED)	60.S30VF.001
SIDE DOOR	RIGHT SIDE COVER (PAINTED)	60.P05VF.002
CHASSIS W/0 I/O SHIELD	S100 SUB CASE ASSY(W/O IO SHIELD)	60.P05VF.003
I/O BRACKET	COVER SLOT	33.RC9VF.004
EMPTY COVER FOR 5.25" DEVICE	5.25" FILLER PANEL	42.S03VF.004
FILLER COVER FOR 3 1/2" DEVICE	3.5" FILLER PANEL	42.S03VF.005
I/O SHIELD	I/O SHIELD ASSY	PZ.P2308.001
RETENTION MODULE	RETENTION MODULE	42.P05VF.002

PART NAME	DESCRIPTION	P/N
FOOT STAND		
RUBBER FOOT	RUBBER FOOT	47.V02VF.701
CD-ROM DRIVE		
CD-ROM 52X LITEON LTN-529S LF BLACK	52X CD-ROM , LITEON LTN-529S , LF , BLACK COLOR	KD.05209.005
COMBO DRIVE		
COMBO DRIVE 52X HLDS GCC-4521B BLACK F/W:1.02	COMBO DRIVE 52X HLDS GCC-4521B BLACK	KO.0520A.002
COMBO DRIVE 52X HLDS GCC-4522B LF BLACK	COMBO DRIVE 52X HLDS GCC-4522B LF BLACK	KO.0520A.003
COMBO DRIVE 52X LITEON SOHC-5236K LF BLACK	COMBO DRIVE 52X LITEON SOHC-5236K LF BLACK	KO.0520B.003
DVD-ROM DRIVE		
DVD-ROM DRIVE 16X/52X HLDS GDR-8163B BLACK F/W 0120	DVD-ROM DRIVE 16X/52X HLDS GDR-8163B BLACK	KV.0160D.005
DVD-ROM 16X LITEON SOHD-16P9S LF BLACK	DVD-ROM 16X LITEON SOHD-16P9S LF BLACK	KV.01604.007
DVD-ROM 16X PIONEER DVD-123RD LF BLACK	DVD-ROM 16X PIONEER DVD-123RD LF BLACK	KV.01605.005
DVD RW DRIVE		
SUPERMULTI PLUS 16X HLDS GSA-4163B F/W A102 BLACK	SUPERMULTI PLUS 16X DVD HLDS GSA-4163B F/W A102 BLACK	KU.0160D.005
SUPER MULTI,HLDS 16X HLSD GSA-4165B LF BLACK	SUPER MULTI,HLDS 16X HLSD GSA-4165B LF BLACK	KU.0160D.007
DVD DUAL DRIVE		
DVD DUAL 16X PIONEER DVR-109RA LF BLACK F/W 1.40	16X DVD DUAL (DL), PIONEERDVR-109RA . LF , BLACK COLOR	KU.01605.002
DVD DUAL (DL) 16X LITEON SHOW-1673S BLACK	DVD DUAL (DL) 16X LITEON SHOW-1673S BLACK	KU.01604.005
DVD DUAL 16X HLDS GWA-4164B LF BLACK	DVD DUAL 16X HLDS GWA-4164B LF BLACK	KV.0160D.006
FAN SINK		
FANSINK FOR NW>=3.0G/PRESCOTT <= 3.4GHZ (SOCKET 478) FOXCONN PKP251GB1D12+DELTA FAN AFB0712	FOXCONN FAN SINK FOR NW>=3.0G OR PSC CPU (PKP251GB1D12+FAN AFB0712)	HI.2510C.001
SYSTEM 92X92X25MM 2200RPM SUNON KDE1209PTV3	SYSTEM FAN 92X92X25MM 2200RPM, KDE1209P	HI.S150F.001
FAN DUCK	FAN DUCK ASSY	PZ.P0608.002
CPU/PROCESSOR		
PRESCOTT 2.8GHZ/1M/533FSB	SL7PK, RK80546PE0721M	KC.DPE01.28B
P4 2.8G 1M 533FSB (D-1)	SL7E2, RK80546PE0721M	KC.DP001.28B
P4 2.8G 1M 533FSB	SL7D8, RK80546PE0721M	KC.DPP01.28B
CELERON D 350 (3.2G 256K 533FSB E-0)	RK80546RE088256	KC.DCE01.32B
CELERON D 345 (3.06G 256K 533FSB E-0)	SL7DN, RK80546RE083256	KC.DCE01.306
CELERON D 340 (2.93G 256K 533FSB E-0)	SL7TS, RK80546RE077256	KC.DCE01.293

PART NAME	DESCRIPTION	P/N
CELERON D 335 (2.8G 256K 533FSB E-0)	SL7NW, RK80546RE072256	KC.DCE01.28B
CELERON D 330 (2.66G 256K 533FSB E-0)	SL7NV, RK80546RE067256	KC.DCE01.266
CELERON D 350 (3.2G 256K 533FSB)	SL7DP, RK80546RE088256	KC.DCP01.32B
CELERON D 340 (2.93G 256K 533FSB)	SL7Q9, RK80546RE077256	KC.DCP01.293
CELERON D 335 (2.8G 256K 533FSB D-0)	SL7DM, RK80546RE072256	KC.DCD01.28B
CELERON D 330 (2.66G 256K 533FSB D-0)	SL7DL, RK80546RE067256	KC.DCD01.266
CELERON D 325 (2.53G 256K 533FSB D-0)	SL7DK, RK80546RE061256	KC.DCD01.253
CELERON D 335 (2.8G 256K 533FSB C-0)	SL7C7, RK80546RE072256	KC.DC001.28B
CELERON D 330 (2.66G 256K 533FSB C-0)	SL7C6, RK80546RE067256	KC.DC001.266
CELERON D 325 (2.53G 256K 533FSB C-0)	SL7C5, RK80546RE061256	KC.DC001.253
FDD/FLOPPY DISK DRIVE		
FDD 1.44MB PANASONIC JU-256A198PC BLACK	FDD,PANASONIC,JU-256A198PC BLACK	KF.25602.003
ADD-ON CARD		
VGA CARD LEADTEK GEFORCE FX5200SE/C/128MB/VGA+PAL(NZ)/ATX	VGA LEAADTEK FX5200SE 128MB	VG.521SE.128
VGA CARD GF 4M X4000/C/32MB/VGA + PAL(NZ)/HEATSINK	VGA,GF4MX4000/C/32MB,PAL,LEADTEK	VG.29304.005
VGA CARD ATI RADEON 9550 128MB 64BIT DSUB TVO+ DVI PAL ATX BRACKET SAPPHIRE 1024-HC20-0D-AC	VGA CARD ATI RADEON 9550 128MB 64BIT DSUB TVO+ DVI PAL ATX BRACKET SAPPHIRE 1024-HC20-0D-AC	VG.9550B.001
ATI RADEON 9550 128MB 64BIT DSUB TV OUT + DVI NTSC ATX BRACKET SAPPHIRE	ATI RADEON 9550 128MB 64BIT DSUB TV OUT + DVI NTSC ATX BRACKET SAPPHIRE	VG.9550B.002
VGA CARD SP ATI9250 RC26 128MB 64BIT(MEZZA) TVO+D+V PAL W/ATX BTK SAPPHIRE	GA CARD SP ATI9250 RC26 128MB 64BIT(MEZZA) TVO+D+V PAL W/ATX BTK SAPPHIRE	VG.9250B.001
VGA CARD SP ATI9250 RC26 128MB 64BIT(MEZZA) TVO+D+V NTSC W/ATX BTK SAPPHIRE	VGA CARD SP ATI9250 RC26 128MB 64BIT(MEZZA) TVO+D+V NTSC W/ATX BTK SAPPHIRE	VG.9250B.002
GEFORCE MX4000 64M/32BIT , DB3376	GEFORCE MX4000 64M/32BIT , DB3376	4221.BLD02.283
GEFORCE FX5200 128M/64BIT ,DB3360	GEFORCE FX5200 128M/64BIT ,DB3360	4221.F5200.283
MODEM CARD 56K D-1156I#/A1A WITH ATX BRACKET LITEON	MODEM CARD 56K D-1156I#/A1A WITH ATX BRACKET LITEON	FX.56I02.010
POINTING DEVICE		
CORDED MOUSE PS2 2 BUTTON WHEEL GENIUS NETSCROLL BLACK	CORDED MOUSE PS2 2 BUTTON WHEEL GENIUS NETSCROLL BLACK	MS.PSE04.008
PS2 NETSCROLL(LEAD-FREE) MOUSE-BLACK KYE	PS2 NETSCROLL(LEAD-FREE) MOUSE-BLACK KYE	MS.NET04.002
MOUSE PS/2 WHEEL ACER(002) GENIUS POWERSCROLL WHITE	GENIUS POWERSCROLL PS/2 BALL ACER(002)	MS.PSE04.003
PS/2 BALL MOUSE M-SBJ96 BLACK LOGITECH	PS/2 BALL MOUSE M-SBJ96 BLACK LOGITECH	MS.SBJ01.001

PART NAME	DESCRIPTION	P/N
PS/2 BALL MOUSE M-SBJ96 BLACK W/ STK LABEL LOGITECH	PS/2 BALL MOUSE M-SBJ96 BLACK W/ STK LABEL LOGITECH	MS.SBJ01.002
PS/2 BALL MOUSE, SBJ69, LEAD-FREE, BLACK	PS/2 BALL MOUSE, SBJ69, LEAD-FREE, BLACK	MS.SBJ01.003
PS/2 BALL MOUSE, SBJ69, LEAD-FREE, W/ STK LABEL , BLACK	PS/2 BALL MOUSE, SBJ69, LEAD-FREE, W/ STK LABEL , BLACK	MS.SBJ01.004
PS/2 OPTICAL MOUSE	PS/2 OPTICAL MOUSE	MS.PS201.001
USB OPTICAL MOUSE 2 BUTTON+WHEEL(SILVER) M-UV ACR1	USB OPTICAL MOUSE 2 BUTTON+WHEEL(SILVER) M-UV ACR1	MS.MUV01.001
USB OPTICAL MOUSE, 2 BUTTON+WHEEL (SILVER) WITH CORE AND NEW CABLE LOGITECH	MOUSE USB OPTICAL W/CORE BK LOGITECH	MS.MUV01.002
USB OPTICAL MOUSE MUV-ACR1 W/ STK LABEL LOGITECH	USB OPTICAL MOUSE MUV-ACR1 W/ STK LABEL LOGITECH	MS.MUV01.003
USB OPTICAL MOUSE, MUV ACR1(BLACK),LEAD-FREE	USB OPTICAL MOUSE, MUV ACR1(BLACK),LEAD-FREE	MS.MUV01.004
USB OPTICAL MOUSE, MUV ACR1, LEAD-FREE, W/ STK LABEL LOGITECH	LOGITECH USB OPTICAL MOUSE, MUV ACR1, LEAD-FREE, W/ STK LABEL	MS.MUV01.005
MOUSE USB WHEEL OPTICAL POWERSCROLL EYEUSB ACER (002) GENIUS WHITE	MOUSE USB WHEEL OPTICAL POWERSCROLL EYEUSB ACER (002)	MS.PSE04.001
CORDED MOUSE USB WHEEL STANDARD GENIUS BLACK	MOUSE SCROLL WHEEL USB BK KYE ACER	MS.PSE04.007
MOUSE USB WHEEL STANDARD POWERSCROLL ACER (002) GENIUS	MOUSE USB WHEEL STANDARD POWERSCROLL ACER (002)	MS.PSE04.004
KEYBOARD		
KEYBOARD US PS/2 LITEON SK1688	KEYBOARD US PS/2 LITEON SK1688	KB.6880B.001
KEYBOARD T.CHINESE PS/2 LITEON SK-1688	KEYBOARD T.CHINESE PS/2 LITEON SK-1688	KB.6880B.002
PS/2 KEYBOARD, KBP2971, US VER., 104KEYS	PS/2 KEYBOARD, KBP2971, US VER., 104KEYS	KB.KBP03.066
PS/2 KEYBOARD, KBP2971, T.CHINESE VER., 104KEYS	PS/2 KEYBOARD, KBP2971, T.CHINESE VER., 104KEYS	KB.KBP03.067
PS/2 KEYBOARD, KBP2971,BLACK, S.CHINESE VER., 104KEYS	PS/2 KEYBOARD, KBP2971,BLACK, S.CHINESE VER., 104KEYS	KB.KBP03.125
PS/2 KEYBOARD, KBP2971, THAI VER., 104KEYS	PS/2 KEYBOARD, KBP2971, THAI VER., 104KEYS	KB.KBP03.069
PS/2 KEYBOARD, KBP2971, CANADIAN/ FRENCH VER., 105KEYS	PS/2 KEYBOARD, KBP2971, CANADIAN/ FRENCH VER., 105KEYS	KB.KBP03.072
PS/2 KEYBOARD, KBP2971, SPANISH VER., 105KEYS	PS/2 KEYBOARD, KBP2971, SPANISH VER., 105KEYS	KB.KBP03.083
USB KB(SILVER), KU0355, US VER., 104KEYS	USB KB(SILVER), KU0355, US VER., 104KEYS	KB.KUP03.034
USB KB(SILVER), KU0355, T.CHINESE VER., 104KEYS	USB KB(SILVER), KU0355, T.CHINESE VER., 104KEYS	KB.KUP03.035
USB KB (SILVER), KU0355, THAI VER., 104 KEYS	USB KB (SILVER), KU0355, THAI VER., 104 KEYS	KB.KUP03.038
USB KB (SILVER), KU0355, SPANISH VER., 105 KEYS	USB KB (SILVER), KU0355, SPANISH VER., 105 KEYS	KB.KUS03.002

PART NAME	DESCRIPTION	P/N
USB KEYBOARD, KU0355, CANADIAN/ FRENCH VER., 105KEYS	USB KEYBOARD, KU0355, CANADIAN/ FRENCH VER., 105KEYS	KB.KUS03.009
HDD/HARD DISK DRIVE		
HDD 40GB 7200RPM SEAGATE ALPINE/ BPA ST340014A	HDD 40GB 7200RPM SEAGATE ALPINE/BPA ST340014A	KH.04001.011
HDD 80GB 7200RPM SEAGATE ALPINE/ BPA ST380011A	HDD 80G 7200 ALPINE/BPA SEAGATE	KH.08001.008
HDD 120GB 7200RPM SEAGATE ALPINE/ BPA ST3120022A	HDD 120GB 7200RPM SEAGATE ALPINE/BPA ST3120022A	KH.12001.010
HDD 160GB 7200RPM SEAGATE ALPINE/ BPA ST3160021A	HDD 160GB 7200RPM SEAGATE ALPINE/BPA ST3160021A	KH.16001.009
HDD 200G 7200RPM XL80II WD2000BB-22GUC0 ROHS 2MB F/W C0	HDD 200G 7200RPM XL80II WD2000BB-22GUC0 ROHS 2MB F/W C0	KH.20008.009
HDD 160G 7200RPM WD XL80II WD1600BB-22GUC0 ROHS 2MB F/W C0	HDD 160G/7200RPM WD1600BB-22GUC0 WD	KH.16008.009
HDD 120G 7200RPM XL80II WD1200BB-22GUC0 ROHS 2MB F/W C0	120G WD 3.5" 7200RPM XL80II WD1200BB-22GUC0 ROHS 2MB, F/W C0	KH.12008.009
HDD 80G 7200RPM XL80SDII WD800BB-22JHC0 ROHS 2MB F/W C0	80G WD 3.5" 7200RPM XL80SD II WD800BB-22JHC0 ROHS 2MB, F/W C0	KH.08008.017
HDD 40G 7200RPM XL80SDII WD400BB-22JHC0 ROHS 2MB F/W C0	40G WD 3.5" 7200RPM XL80SD II WD400BB-22JHC0 ROHS 2MB, F/W C0	KH.04008.017
MAINBOARD		
MB SIS661GX/964L/2DIMM/3PCI/1AGP W/I RM & I/O SHIELDING	MB SIS661GX/964L/2DIMM/3PCI/1AGP W/I RM & I/O SHIELDING	MB.P2309.001
MEMORY		
MEMORY DDR 400 256MB PQI MDAD-302HA	MDAD-302HA	KN.2560K.001
MEMORY DDR 400 512MB PQI MDAD-402HA	MDAD-402HA	KN.5120K.001
MEMORY DDR 400 256MB SUPER ELIXIR M1U25664DS88C3G-5T	M1U25664DS88C3G-5T	KN.25603.021
MEMORY DDR 400 512MB SUPER ELIXIR M1U51264DS8HC3G-5T	M1U51264DS8HC3G-5T	KN.51203.019
MEMORY DDR 400 256MB NANYA NT256D64S88C0G-5T (0.11) 32MX8	NT256D64S88C0G-5T (0.11)	KN.25603.016
MEMORY DDR 400 512MB NANYA NT512D64S8HC0G-5T (0.11U) 32MX8	NT512D64S8HC0G5T (0.11 U)	KN.51203.013
MEMORY DDR 400 256MB HYNIX HYMD232646D8R-D43PQ	HYMD232646D8R-D43PQ	KN.2560G.003
MEMORY DDR 400 512MB HYNIX HYMD264646D8R-D43PQ	HYMD264646D8R-D43PQ	KN.5120G.002
MEMORY DDR 400 1GMB INFINEON HYS64D128320HU-5-B	HYS64D128320HU-5-B	KN.1GB02.008
MEMORY DDR 400 256MB INFINEON HYS64D32300HU-5-C (.11U/GREEN)	HYS64D32300HU-5-C (.11U/GREEN)	KN.25602.013
MEMORY DDR 400 512MB INFINEON HYS64D64320HU-5-C (.11U/GREEN)	HYS64D64320HU-5-C (.11U/GREEN)	KN.51202.012
MEMORY DDR 400 128MB APACER	128MB DDR401 PSC CHIP	75.7449C.571

PART NAME	DESCRIPTION	P/N
MEMORY DDR 400 256MB APACER	256MB DDR400 PSC CHIP	77.10639.53G
MEMORY DDR 400 512MB APACER	512MB DDR400 PSC CHIP	77.10739.53G
POWER SUPPLY		
POWER SUPPLY ATX2500-65PC(PF), 200W PFC SPS	SPS,FSP200-ATV(A)(PF)	PY.18008.001
POWER SUPPLY 230W W/O PFC FSP FSP200-ATV(A)	POWERSUPPLY-FSP230-60ATV	PY.23008.003
POWER SUPPLY 230W W PFC FSP 200-ATV(A)(PF)	POWERSUPPLY-FSP230-60ATV-PF	PY.23008.004
SCREW		
FDD, USB BOARD SCREW	SCREW M3*6(FDD,USB BOARD,OPTICAL DRIVE)	86.PSPVF.001
SCREW#6-32UNC	SCREW#6-32UNC	86.RC9VF.001
SCREW #6-32	SCREW #6-32	86.P05VF.001
SCREW FOR FAN	SCREW FOR FAN	86.P06VF.001
SPEAKER		
SPEAKER USB 3" *2 NEOSONICA 510 THYME510 WHITE	SPEAKER,USB 3" *2, 510,NEOSONICA	SP.51004.001
SPEAKER USB 3" *2 NEOSONICA THYME510 BLACK	SPEAKER,USB 3"FULL RANG CONE,THYME510	SP.51004.003
SPEAKER 2.0 USB M-1118B ACER LOGO	2.0 SPEAKER, USB, M-1118B, ACER LOGO	SP.11805.001
SPEAKER 2.0 USB M-1118B ACER LOGO W/STK LABEL	2.0 SPEAKER, USB, M-1118B, ACER LOGO, WITH STK LABEL	SP.11805.002

Model Definition and Configuration

The Aspire S260/AcerPower SA60 Model No. Define:

1. Trade Mark:

2. Brand Name: Acer
3. Model No: K6.2
4. Product Name: Aspire SA60/AcerPower S260

Test Compatible Components

Aspire SA60/AcerPower S260 compatibility is tested and verified by Acer's internal testing department. All of its system functions are tested under the environments of Windows XP Home.

Microsoft Windows XP Home Environment Test

COMPONENTS	SPEC.	MODEL DESCRIPTION
MAINBOARD		
Foxconn	SiS661GX/964L/2DIMM/3PCI/ 1AGP with CPU RM & IO bracket	F661GX
	F661GXM SiS661GX/964L/ 2DIMM/3PCI/1AGP w/I CPU RM	
CHASSIS		
Foxconn	H303	H303 (TLM)
	H401	H401
BEZEL		
Foxconn	S42 for Aspire	S42
	S1 for AcerPower	S1
	S44 for AcerPower (China only)	S44
	S43 for Aspire(EMEA only)	S3
DAUGHTER BOARD		
ECS	ECS AK32 DB	AK32_S100
CPU		
Intel	Celeron D 350 (3.2G 256K 533FSB E-0)	RK80546RE088256
	Celeron D 345 (3.06G 256K 533FSB E-0)	SL7DN, RK80546RE083256
	Celeron D 340 (2.93G 256K 533FSB E-0)	SL7TS, RK80546RE077256
	Celeron D 335 (2.8G 256K 533FSB E-0)	SL7NW, RK80546RE072256
	Celeron D 330 (2.66G 256K 533FSB E-0)	SL7NV, RK80546RE067256
	Celeron D 350 (3.2G 256K 533FSB)	SL7DP, RK80546RE088256
	Celeron D 340 (2.93G 256K 533FSB)	SL7Q9, RK80546RE077256
	Celeron D 335 (2.8G 256K 533FSB D-0)	SL7DM, RK80546RE072256
	Celeron D 330 (2.66G 256K 533FSB D-0)	SL7DL, RK80546RE067256
	Celeron D 325 (2.53G 256K 533FSB D-0)	SL7DK, RK80546RE061256
	Celeron D 335 (2.8G 256K 533FSB C-0)	SL7C7, RK80546RE072256
	Celeron D 330 (2.66G 256K 533FSB C-0)	SL7C6, RK80546RE067256
	Celeron D 325 (2.53G 256K 533FSB C-0)	SL7C5, RK80546RE061256
CPU FAN		
Foxconn	PKP251GB1D12+ Delta fan AFB0712	PKP251GB1D12+ Delta fan AFB0712

COMPONENTS	SPEC.	MODEL DESCRIPTION
SYSTEM FAN		
Sunon	Sunon 92X92X25mm 2200RPM System Fan	KDE1209PTV3
FAN DUCK		
FXC	H303 side cover CPU fan duck	H303 side cover CPU fan duck
DIMM (DDR-400)		
PQI	256DDR400	MDAD-302HA
	512 DDR400	MDAD-402HA
Super Elixir	256DDR400	M1U25664DS88C3G-5T
	512 DDR400	M1U51264DS8HC3G-5T
Nanya	NT256D64S88C0G-5T (0.11)	NT256D64S88C0G-5T (0.11)
	NT512D64S8HC0G5T (0.11 u)	NT512D64S8HC0G5T (0.11 u)
Hynix	DDR400 256MBHYMD232646D8R-D43PQ	HYMD232646D8R-D43PQ
	DDR400 512MB HYMD264646D8R-D43PQ	DDR400 512MB HYMD264646D8R-D43PQ
Infineon	DDR400 1G	HYS64D128320HU-5-B
	DDR400 256Mb	HYS64D32300HU-5-C (.11u/Green)
	DDR400 512Mb	HYS64D64320HU-5-C (.11u/Green)
Apacer	128MB DDR400	128MB DDR401 PSC Chip
	256Mb DDR400	256Mb DDR400 PSC chip
	512Mb DDR400	512Mb DDR400 PSC chip
HDD		
Seagate	Alpine/BPA 40G 7200RPM, ATA-100	ST340014A
	Alpine/BPA 80G 7200RPM, ATA-100	ST380011A
	Alpine/BPA 120G 7200RPM, ATA-100	ST3120022A
	Alpine/BPA 160G 7200RPM, ATA-100	ST3160021A
WD	200G WD200BB-22GUC0, 2MB, RohS	WD200BB-22GUC0, 2MB, RohS
	WD1600BB-22GUC0, 2MB, RohS	WD1600BB-22GUC0, 2MB, RohS
	120G WD1200BB-22GUC0, 2MB, RohS	WD1200BB-22GUC0, 2MB, RohS
	80G WD800BB-22JHC0, 2MB, RohS	WD800BB-22JHC0, 2MB, RohS
	40G WD400BB-22JHC0, 2MB, RohS	WD400BB-22JHC0
CD-ROM		
LiteOn	52X CD-ROM	LTN-529S, LF
CD-RW		
HLDS	32X CD-RW	GCE-8527Bk , LF

COMPONENTS	SPEC.	MODEL DESCRIPTION
DVD		
HLDS	16X DVD-ROM	GDR-8163B(black)
LiteOn	16X DVD-ROM	SOHD-16P9S, LF
Pioneer	16X DVD-ROM	DVD-123RD
COMBO		
HLDS	52X COMBO	GCC-4521B(black)
	52X COMBO	GCC-4522B, LF
LiteOn	52X COMBO	SOHC-5236K , LF
SuperMulti/DL		
HLDS	16X Super Multi, double-layer	GSA-4163B
	16X Super Multi, double-layer	GSA-4165B, LF
DVD DUAL/DL		
PIONEER	16X DVD Dual, double-layer	DVR-109RA , LF
LiteOn	16X DVD Dual, double-layer	SHOW-1673S
HLDS	16X DVD Dual, double-layer	GWA-4164B, LF
VGA		
Leadtek	GeForce FX5200SE/C/128MB/ VGA + PAL(NZ)/ATX	GeForce FX5200SE/C/128MB/VGA + PAL(NZ)/ATX
	GF 4M X4000/C/32MB/VGA + PAL(NZ)/HEATSINK	GF 4M X4000/C/32MB/VGA + PAL(NZ)/HEATSINK
Sapphire	ATI Radeon 9550 128MB 64bit DSUB TV out + DVI PAL ATX bracket	1024-HC20-0D-AC
	ATI Radeon 9550 128MB 64bit DSUB TV out + DVI NTSC ATX bracket	ATI Radeon 9550 128MB 64bit DSUB TV out + DVI NTSC ATX bracket
	SP ATI9250 RC26 128MB 64bit(Mezza) TVO+D+V PAL w/ ATX BTK	1024-RC26-0F-AC
	SP ATI9250 RC26 128MB 64bit(Mezza) TVO+D+V NTSC w/ ATX BTK	SP ATI9250 RC26 128MB 64bit(Mezza) TVO+D+V NTSC w/ATX BTK
Sparcle	GeForce MX4000 64M/32bit	SP7310
	GeForce FX5200 128M/64bit	SP8834F2
MODEM CARD		
GVC	GVC 56K modem with ATX bracket D-1156I#/A1A	GVC 56K modem with ATX bracket D-1156I#/A1A
SPS		
FSP (China)	ATX2500-65PC(PF), 230W PFC SPS for H303	ATX2500-65PC (PFC only)
FSP	FSP200-60ATV(A), 230W non-PFC Power Supply	FSP200-60ATV
	FSP200-60ATV(A)(PF), 230W PFC Power Supply	FSP200-60ATV(PF)
FDD		
Panasonic	1.44M 3.5"(black)	JU-256A198PC

COMPONENTS	SPEC.	MODEL DESCRIPTION
CARD READER		
KYE	3.5" KYE 9-in-1 card reader	ID03
PS/2 KEYBOARD		
Chicony	PS/2 Keyboard, KBP2971, US Ver., 104keys	KBP2971(black)
	PS/2 Keyboard, KBP2971, T.Chinese Ver., 104keys	KBP2971(black)
	PS/2 Keyboard, KBP2971, S.Chinese Ver., 104keys	KBP2971(black)
	PS/2 Keyboard, KBP2971, Thai Ver., 104keys	KBP2971(black)
	PS/2 Keyboard, KBP2971, Canadian/French Ver., 105keys	KBP2971(black)
	PS/2 Keyboard, KBP2971, Spanish Ver., 105keys	KBP2971(black)
LiteOn	Liteon PS2 KB, SK1688, English	
	Liteon PS2 KB, SK-1688, T. Chinese	
USB KEYBOARD		
Chicony	USB Keyboard, KU-0355, US Ver., 104keys	KU-0355(silver+black)
	USB Keyboard, KU-0355, T.Chinese Ver., 104keys	KU-0355(silver+black)
	USB Keyboard, KU-0355, Thai Ver., 104keys	KU-0355(silver+black)
	USB Keyboard, KU-0355, Spanish Ver., 105keys	KU-0355(silver+black)
	USB Keyboard, KU-0355, Canadian/French Ver., 105keys	KU-0355(silver+black)
PS/2 BALL MOUSE		
KYE	PS/2 ball mouse, 2 button+wheel	NetScroll PS2(black)
	PS/2 ball mouse, 2 button+wheel, Lead-free	NetScroll PS2(black)
	PS/2 ball mouse, 2 button+wheel	PowerScroll PS2(white)
Logitech	PS/2 ball mouse, SBJ69	SBJ69 (Black)
	PS/2 ball mouse, SBJ69, w/ STK label	SBJ69 (Black)
	PS/2 ball mouse, SBJ69, Lead-free	SBJ69 (Black)
	PS/2 ball mouse, SBJ69, Lead-free, w/ STK label	SBJ69 (Black)
PS/2 OPTICAL MOUSE		
Logitech	PS/2 Optical mouse	PS/2 Optical mouse

COMPONENTS	SPEC.	MODEL DESCRIPTION
USB OPTICAL MOUSE		
Logitech	USB optical mouse, MUV ACR1	M-UV ACR1 (black)
	USB optical mouse, MUV ACR1, with core	M-UV ACR1 (black)
	USB optical mouse, MUV ACR1, w/ STK label	M-UV ACR1 (black)
	USB optical mouse, MUV ACR1, Lead-free	M-UV ACR1 (black), LF
	USB optical mouse, MUV ACR1, Lead-free, w/ STK label	M-UV ACR1 (black), LF
KYE	USB optical mouse, 2 button+wheel	PowerScroll USB(white)
USB BALL MOUSE		
KYE	USB ball mouse, 2 button+wheel	Powerscroll USB Wheel(black)
	USB ball mouse, 2 button+wheel	Powerscroll USB Wheel(white)
SPEAKER		
Neosonica	USB, 3" *2	Thyme510(black)
	USB, 3" *2	Thyme510(white)
JS	2.0 speaker, USB, M-1118B, Acer logo	M-1118B
	2.0 speaker, USB, M-1118B, Acer logo, with STK label	M-1118B

Online Support Information

This section describes online technical support services available to help you repair your Acer Systems.

If you are a distributor, dealer, ASP or TPM, please refer your technical queries to your local Acer branch office. Acer Branch Offices and Regional Business Units may access our website. However some information sources will require a user i.d. and password. These can be obtained directly from Acer CSD Taiwan.

Acer's Website offers you convenient and valuable support resources whenever you need them.

In the Technical Information section you can download information on all of Acer's Notebook, Desktop and Server models including:

- Service guides
- User's manuals
- Training materials
- Main manuals
- Bios updates
- Software utilities
- Spare parts lists
- TABs (Technical Announcement Bulletin)

For these purposes, we have included an Acrobat File to facilitate the problem-free downloading of our technical material.

Also contained on this website are:

- Detailed information on Acer's International Traveller's Warranty (ITW)
- Returned material authorization procedures
- An overview of all the support services we offer, accompanied by a list of telephone, fax and email contacts for all your technical queries.

We are always looking for ways to optimize and improve our services, so if you have any suggestions or comments, please do not hesitate to communicate these to us.